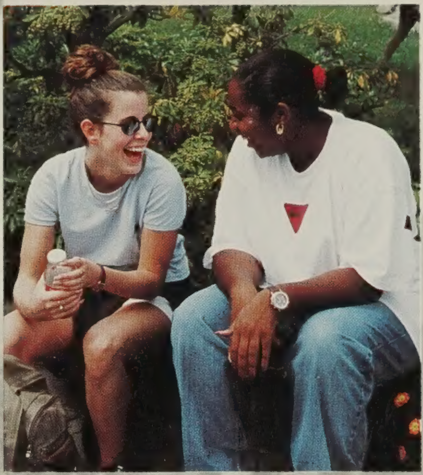
Broome
Community
College

BCC
State University of New York

1999–01 General Catalog

...where it all begins



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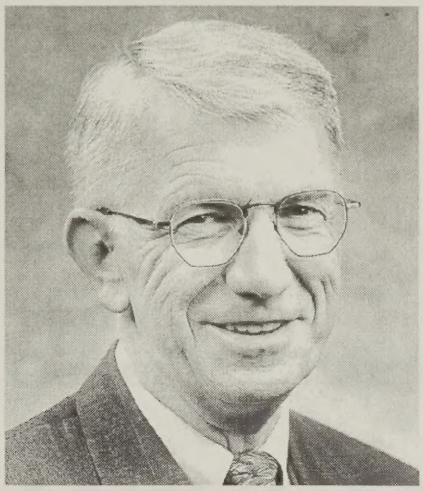

From the Desk of the President

Broome Community College offers a high-quality educational experience, providing you the opportunity to fulfill your goals and to reach your full potential. We have been doing this successfully for more than 50 years, now. Graduates from our institution have successfully proven their abilities in some of the finest universities and colleges in our country. Successful graduates have gone on to hold important positions in major corporations throughout the country. We at BCC are very proud of our alumni and their accomplishments.

A major reason for our success in providing this quality education over the years has been an expert and highly dedicated faculty. A commitment to small class size, individualized attention, and special needs assistance, guarantees students the help they need in the classroom.

We feel that our students must have access to new technologies if they are to compete successfully in our global economy. With that belief, BCC can boast of having made a continuing major investment in modern technology and equipment.

BCC is also proud of its tradition of offering a variety of social, recreational, and fine arts activities. We encourage our students to participate in student government, clubs and other activities, and to enjoy the opportunity for a well-rounded education.

As you review the catalog, I think you will find that the programs of study we offer will allow for transfer to the university or college of your choice or for immediate entry into the work force. I urge you to contact our admissions office to obtain more specific information about the programs in which you have an interest.

We at BCC are proud of our tradition and feel that we can offer you a quality education at a reasonable cost. Come take a look at us.

Sincerely,

Donald A Dellow

Donald A. Dellow
President

TDD / TTY Telephones

ACCESS Center	778-5210
Admissions	778-5001
Coordinator of Interpreting Services	778-5398
Registrar's Office	778-5027
Student Accounts	778-5230
Student Support Services	778-5234
The Little Theatre	778-5191

The College reserves the right at any time to make changes deemed advisable or necessary. The College, moreover, shall not be held responsible for any typographical errors contained in this catalog. For information about the College, its programs, and its admissions procedures, contact:

Office of Admissions
Broome Community College
P.O. Box 1017
Binghamton, New York 13902

Phone 607 778-5001

Hearing Impaired: 607 778-5150 (TDD/TTY)

Broome
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1999–2001
General Catalog

Broome Community College

A comprehensive Community College supervised by the State University of New York and sponsored by Broome County, New York

Broome Community College
P.O. Box 1017
Binghamton, NY 13902
Phone: 607 778-5000
Outside Local Calling Area: 800 836-8689
TTY/TDD: 607 778-5150
FAX: 607 778-5310
URL: http//:www.sunybroome. edu

Partners in Progress

- Broome Community College
- State University of New York
- Broome County, New York

Accreditation

Broome Community College is a member of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104-2680. Phone 215-662-5606.

The College is supervised by the State University of New York and its curriculums are registered by the State Education Department.

The Chemical, Civil, Electrical, and Mechanical Engineering Technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202. Phone: 410-347-7700.

The Dental Hygiene Program is accredited by the American Dental Association Commission on Dental Accreditation, 211 E. Chicago Avenue, Chicago, IL 60611. Phone: 800-621-8099. The Nursing Curriculum is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006. Phone: 212-365-5555.

The Health Information Technology Program is accredited by the Council on Accreditation of the American Health Information Management Association, 919 N. Michigan Ave., Suite 1400, Chicago, IL 60611-1683. Phone: 312-787-2672, in collaboration with the Commission on the Accreditation of Allied Health Education Programs.

The Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 900, Chicago, IL 60606-2910. Phone: 312-704-5300.

The Medical Assistant Program is accredited by the Commission on the Accreditation of Allied Health Education Programs. The Medical Assistant Program is also accredited by the American Association of Medical Assistants, 20 N. Wacker Drive, Suite 1575, Chicago, IL 60606-2003. Phone: 800-228-2262.

The Physical Therapist Assistant Program is accredited by the Commission on Accreditation in Physical Therapy Education, 1111 N. Fairfax Street, Alexandria, VA 22314. Phone: 703-684-2782.

The Medical Laboratory Technology curriculum is approved by the National Accrediting Agency for Clinical Laboratory Science (NAACLS), 8410 W. Bryn Mawr Avenue, #670, Chicago, IL 60631-3415. Phone: 773-714-8880. The Dietary Program is approved by the Dietary Managers Association.

Non-Discrimination Commitment

Broome Community College does not discriminate on the basis of race, sex, color, religion, age, national origin, disability, marital status, sexual orientation, or status as a disabled veteran or veteran of the Vietnam era in the recruitment or education of students; the recruitment and employment of faculty and staff; or the operation of any of its programs or activities. Where relevant, state and federal laws apply.

The designated coordinator for compliance with Title VI and VII of the Civil Rights Act of 1964, as amended, Title IX of the Education Amendments of 1972, and Section 402 of the Vietnam Era Veterans' Readjustments Assistance Act of 1974, as amended, is the Affirmative Action/Equal Opportunity Officer.

The designated coordinator for compliance with Section 504 of the Rehabilitation Act of 1973, as amended, is the Director of Student Support Services.

For further information or questions, contact the office weekdays, during regular College hours.

Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974, as amended, establishes specific rights for students and/or their parents and prevents the release of certain information without the written consent of the student. Generally, this federal law gives students, former students, and alumni the right to review, in the presence of college personnel, their own personal records maintained by the college, including academic and financial records.

Parents of dependent students, as defined by the Internal Revenue Service, may have access to the college records of their dependent sons or daughters without student consent. Parents do not have the right to see records of children who are no longer dependent upon them.

At Broome Community College, the repository for student records is the Office of the Registrar (SS105). This office is open weekdays from 9 a.m. to 5 p.m.

In keeping with the spirit of Section 438 of the Act, the Registrar has been appointed as Records Access Officer. The following procedures have been developed for the benefit of the student and eligible parent:

1. a. A student in attendance at Broome Community College shall, upon written application, be able to view his/her educational records at the Office of the Registrar within 45 days of the date of said application. This application is available in the Office of the Registrar.
   b. A parent or guardian of a student in attendance at Broome Community College, who claims a student as a dependent on his/her Federal Income Tax Form shall, upon proper presentation of the dependency condition, be afforded the same rights as set forth in Paragraph 1a.
2. Access to personally identifiable information about a student without the consent of the student may be provided by the College to the following individuals or agencies only:
   a. School officials and professional employees of Broome Community College who have a legitimate educational interest.
   b. School officials of educational institutions to which a student might transfer.
   c. Authorized state and federal government officials of educational and funding agencies.
   d. Educational research agencies, with the provision that they release only non-personally identifiable data.
   e. Accrediting organizations.
3. Disclosure Without Approval of Student or Eligible Parent:
   a. Upon receipt of a Judicial Subpoena of the records of a student, a reasonable attempt will be made to notify the student or the parent of the existence of the order of the subpoena in advance compliance therewith.
   b. In the event of an emergency involving the health or safety of a student, the Registrar may disclose information to Federal or State Officials.
   c. Directory Information — The name of the student, full time or part time status, dates of attendance, BCC e-mail address, and degree earned and date of graduation will constitute the total amount of information given to any individual making inquiry at Broome Community College, *unless the student or eligible parent refuses to permit the disclosure. The student or eligible parent must submit, within 30 days of this publication to the Registrar, that such personally identifiable information is not to be designated as directory information with respect to that student.*
4. Broome Community College shall, on request, provide an opportunity for a hearing in order to challenge the content of a student's education records to insure that information in the education records of the student is not inaccurate, misleading, or otherwise in violation of the rights of privacy or other rights of students. The request for a hearing will be directed to the Registrar.

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PART 3 109-160

Course Descriptions

Descriptions of all courses offered by the College, arranged in alphabetical order by curriculum codes, and subheaded by academic subject. Check the listing of curriculum codes opposite page 109 to find the subject area which interests you.

PART 4 161-176

College Organization

Administrators and faculty currently on staff at BCC, listed by department. Information on the State University of New York (of which BCC is a part). Index, Map, and Academic Calendar.

About Broome Community College

Broome Community College is a comprehensive community college supervised by the State University of New York, sponsored by the County of Broome, and governed by a Board of Trustees.

It offers programs designed to prepare graduates for immediate employment (Associate in Applied Science degrees), and for transfer to four-year colleges and universities (Associate in Arts, and Associate in Science degrees). The college also sponsors a variety of certificate programs, short-term training programs, and non-credit community education courses.

Vision, Mission, and Values

Vision

Broome Community College strives to be a leader in anticipating and responding to diverse individual, community and global needs for accessible lifelong educational opportunities. We collaborate with others to create high quality, innovative, student-centered learning environments guided by our shared values.

Broome Community College...

strives to be a leader	We see our role as one of leadership in the community.
in anticipating	We will be proactive in identifying future needs for educational, training and student support services.
and responding	We will marshal our resources and take responsibility for making things happen so that needs are addressed in a focused and timely manner.
to diverse individual, community and global needs	The programs and services developed by us may be delivered to an individual, but they will take into account economic and social needs of the local community as well as selected global concerns. Our challenge is to contribute tangibly to the improvement of the local community by using our intimate knowledge of the community and our skills and resources to build, student by student, an effective citizenry and productive workforce.
for accessible	We have a unique mission to maintain the highest degree of accessibility by keeping costs low, and providing services in convenient locations and at appropriate times. This could include designing programs that are integrated into employment or secondary educational settings.
lifelong learning opportunities	The community relies on us to adapt our programs to meet residents' changing needs. Responding to major job dislocations and an influx of refugees, reinforcing the skills of the employed workforce, enriching the lives of residents with new ideas, helping people get back on track with a second or third chance at an education, are all vital roles played by BCC.
We collaborate with others to create	We are committed to addressing the important issues facing the local community, but we know that the answers will come from the combined efforts and resources of many agencies, organizations, and institutions.
high quality	We are recognized for the quality of our programs and the range of services they include. This quality will be maintained and improved.
innovative	Our solutions may require new partnerships, new ways of delivering educational services, and new ways of using our educational skills and resources. We will contribute the creativity of our people in whatever ways will be productive.
student-centered learning environments	We recognize that the need to supply each student with appropriate and diverse learning opportunities, as well as administrative and support services, is more important than ever to the achievement of our mission.
guided by our shared values	We will maintain our commitment to the principle of free and open inquiry in the academic tradition. The Statement of Values is the framework that guides the policies and procedures governing the day to day operations of the college.

Mission

Broome Community College provides:

- open access to those who can benefit from its programs and services.
- university parallel degree programs for students aspiring to baccalaureate degrees and professions.
- occupational and technical degree and certificate programs for students aspiring to careers in business, health, technology, and human services.
- General Education to broaden and deepen students' intellectual, moral, civic, and social competence for effective participation in the world community.
- collaborative leadership among the diverse institutions, organizations, agencies, and other entities which comprise our community.

- community and continuing education and training to serve the needs and interests of individuals, employers, and agencies.
- career advising, skills and knowledge assessment, and related support services to help students reach their full potential.
- a community of free inquiry and educational achievement wherein each member is treated respectfully.
- a broad range of educational, social, athletic and recreational activities to foster students' personal development, community involvement, and leadership skills.

Values

In fulfilling its mission and fashioning its goals, Broome Community College affirms these commitments:

• *to Learning*	The primary reason BCC exists is to offer lifelong learning opportunities for our students under the principle of free and open inquiry. These opportunities are accessible, affordable, and of the highest quality possible.
• *to Excellence*	In fulfilling our mission, achieving excellence is a process both valued and expected. We value both the leadership of individuals and collaboration of teams as part of a continuous improvement effort.
• *to Equity*	Respecting both individual rights and social obligations, the college is an advocate for fairness and just treatment for all students and staff.
• *to Diversity*	BCC values and celebrates the diversity of its students and employees. We respect their diverse life experiences, appreciate their contributions to our learning community, and promote individual development and success.
• *to Accountability*	We honor the trust placed in us by the larger community and understand our accountability for efficient and effective use of resources. We also expect personal honesty, integrity, and responsibility to be essential elements in our learning environment.
• *to Innovation*	BCC encourages all members of its community to imagine. We nurture an environment of innovation and experimentation and invite all to participate in the unique possibilities of a learning community.

College History

1946	Chartered as New York State Institute of Applied Arts and Sciences at Binghamton
1953	Name changed to Broome County Technical Institute
1956	Name changed to Broome Technical Community College
1957	Campus moved to present location on Upper Front Street, Binghamton, NY
1971	Name changed to Broome Community College

Campus Setting

Binghamton is centrally located in the State of New York, 45 miles from Ithaca, 70 miles from Syracuse, and about 200 miles from both New York City and Philadelphia. Routes I-81, I-88, and NY 17 pass through the city.

Binghamton, Endicott, and Johnson City make up the Triple Cities, an urban metropolitan area that offers a sophisticated cultural life along with easily accessible outdoor recreational opportunities. Major employers are IBM, United Health Services, Universal Instruments, Lockheed Martin, and Binghamton University (one of SUNY's four University Centers, located a few miles from BCC).

Broome Community College's campus is located three miles north of Binghamton on Upper Front Street, which is Route 11 alongside Interstate 81. The campus is landscaped with a variety of trees and open green spaces and has a hillside backdrop; four of its 15 buildings face a major quadrangle. The total campus building space is 530,380 square feet. A campus map is on the inside back cover.

Computing Resources

BCC students are eligible for computer accounts providing access to current software suites, e-mail, and the Internet, including the World Wide Web, in fifteen labs on campus. Personal computers, terminals, and laser printers are available for use throughout the day. Eight servers support Academic and Administrative computing. Campus-wide networking gives access to over 500 devices. Dial-up lines make remote access possible. Visit our web site at: http://www.sunybroome.edu.

BCC Foundation

The Broome Community College Foundation, Inc. is a self-supporting not-for-profit corporation established in 1965 by community leaders to raise, invest, and administer private funds to benefit BCC, its students and faculty. The Foundation's top priority is to assist students with grants-in-aid and scholarships, but its charter also calls for assisting faculty and staff by helping fund their professional development and training, and providing the College with equipment, seed money for special projects, and other items for which county funds are either insufficient or unavailable. In recent years, the Foundation has also embarked on special capital projects such as campaigns to raise money to build and equip a new center for the College's health science programs. The Foundation serves as a conduit for all private gifts to the College. All such gifts are tax-deductible.

FOUNDATION, continued on pg. 8

FOUNDATION, continued from pg. 7

Over 100 community volunteers assist with the Foundation's fundraising program every year. In addition to annual gifts contributed by alumni, business and industry, community friends, organizations and foundations, the Foundation has endowment and trust funds of approximately $7.1 million which help support its programs and activities.

Alumni

The College's Alumni Affairs program provides the link to over 30,000 alumni world-wide. News of the College and from alumni is disseminated in the *BCC News*, a semi-annual free publication available to all alumni whose current addresses are on file with the Alumni Affairs department. Membership in the Alumni Association is open to any BCC graduate by payment of a one-time $25 fee.

For information about Alumni Affairs or the Foundation, call 607 778-5036 or 607 778-5182.

The Center for Community Education

Broome Community College has an extensive non-credit community education program which sponsors courses, seminars, mandated professional training, and special events open and available to the public. In addition, BCC Community Education provides customized training and on-site credit courses for business and industry. The ExCEL program provides one-on-one support as well as workshops and training for the small business community. For a current catalog of community offerings, call (607) 778-5012, or visit the BCC Website at www.sunybroome.edu

The BCC Corporate Service Program demonstrates the College's commitment to local economic development. The mission is to produce quality non-credit and credit education and training programs for area business and industry.

For additional information on contract education and training programs, call Corporate Services at the BCC Center for Community Education, 607 778-5054.

Policies, Procedures, & Services

PART I

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Admissions Information

Admissions Procedures

Students are selected as they apply, complete the admissions process, and are found suitably qualified for a particular program. The following items are required by the Admissions Office before a decision can be made on a student's application.

1. Completed Application for Admission form.
2. Official transcripts of high school and all college coursework. Applicants should arrange to have transcripts mailed from the high school/college attended directly to the BCC Admissions Office.
3. If applicable, official G.E.D. scores sent for those applicants having a high school equivalency.

Here are a few items to note concerning the application process:

- Students who wish to enroll full or part-time in any curriculum must apply through the Admissions Office.
- American College Testing (ACT) or Scholastic Aptitude Test (SAT) score reports are not required, but if either or both are available, they should be forwarded to the Admissions Office.
- Recommendations from high school personnel are helpful, if available.
- An interview with an Admissions Counselor at Broome Community College is desirable.
- The postmark date of an application and the date an application folder is complete are important parts of the admissions process and help the College implement its first-come, first-served equal opportunity policy.
- Most programs require that prerequisite courses be successfully completed by June 30 of the summer preceding fall enrollment.

Applicants should recognize that it is their responsibility, not a counselor's or admissions officer's, to complete the necessary forms for admission and to see that all required transcripts and/or other information are received and recognized by the Admissions Office. Completing the application process is the first step toward matriculation, which also includes being accepted into a curriculum and enrolling in coursework.

Acceptance into Broome Community College applies only to the particular semester designated in the acceptance letter. If the person who is accepted does not attend BCC in the semester for which he or she was accepted, and wishes to enroll in a future semester, he/she must reapply. Records are kept on file for one year, so the reapplication process usually involves filling out another application form, unless additional college coursework has been completed.

International students and BCC Study Abroad Programs have separate admissions criteria (see pages 10, 28).

For more information and answers to questions contact:

Admissions Office
Broome Community College
P.O. Box 1017, Binghamton, N.Y. 13902
Phone: 607 778-5001
E-mail: admissions@sunybroome.edu

Diagnostic Testing and Course Placement

The Learning Assistance Center administers placement tests in reading, writing, and mathematics to entering students.

The information gained from these tests is used along with other records to help place students in appropriate courses. Every effort is made to place students in courses in which they can succeed. In some cases, students will be required to enroll in non-credit developmental courses.

Special Admissions Programs

Early Admissions

Early Admissions is a program for high achieving high school students who can benefit from taking college courses, full or part-time, before graduating from high school. While high school seniors are usually enrolled in this program, qualified juniors may also be eligible.

Anyone interested in part-time Early Admissions should contact the BCC Admissions Office at (607) 778-5001 or his/her high school counselor for the special application form. Full-time applicants should use the regular student application.

Applicants Without High School Diplomas

Non-high school diploma applicants may qualify for a high school equivalency diploma by successfully completing 24 credit hours of coursework at BCC or any other college in a degree or certificate program.

Students applying to BCC who have not received a high school diploma or general equivalency diploma (G.E.D.) must demonstrate their "Ability to Benefit" from courses offered at the college. These students must meet the cut-off scores of an ATB test that has been approved by the Department of Education. Students must take reading, writing and numerical skills sections of the test. Additional information is available at the Admissions Office.

Students currently in high school or who have been out of high school for less than one year, and are under 19 years of age, typically cannot qualify for this program.

Educational Opportunity Program (EOP)

The Educational Opportunity Program is designed for New York State residents who fall within specific academic and financial guidelines. EOP provides economic aid, remedial, and developmental assistance, with the amount of financial aid based on need.

To be eligible for EOP, students must provide appropriate income information as verification (778-5220).

The BCC STRIVE (Services and Training Resources for Individuals in Vocational Education) Program is geared specifically to help low income people with dependent children who wish to return to school for occupational education.

The program helps students cope with the responsibilities of being both a parent and a student, and helps to coordinate child care and transportation needs. Contact the BCC STRIVE Program, Room 120, Applied Technology Building, telephone 778-5350.

MMR Immunization Regulations

It is the intent of the administration of Broome Community College to comply and enforce the provisions of Public Health Law Article 21, Title IV, Section 2165-Immunization.

All students registering for 6 or more credits and attending New York State colleges and universities are required to show proof of immunity against measles, mumps, and rubella, prior to attending classes. Individuals born before January 1, 1957, are exempt from this requirement.

Proof of immunity to measles means *two doses of measles vaccine* on or after one's first birthday and at least 30 days apart, physician documented history of disease, or serological evidence of immunity. Proof of rubella immunity means one dose of rubella vaccine on or after the first birthday, or serologic evidence of immunity. Proof of mumps immunity means one dose of mumps vaccine on or after one's first birthday, a physician documented history of disease, or serologic evidence of immunity.

NOTE: If you have graduated from a high school in the United States after *June 1980, your diploma or high school transcript is acceptable proof of having had one MMR. YOU MUST STILL PROVIDE PROOF OF THE SECOND MEASLES BOOSTER.*

Academic Standards for Clinical Education

Academic Standards for Clinical Education in the Health Sciences programs require dismissal of students who fail to meet established academic objectives for the physical safety, psychological safety, and confidentiality of patients.

Students interested in Health Science curricula are advised to see the appropriate department chairperson. Annual physical examination, including Mantoux and other testing, is required in most curricula.

International Students

General Information

Broome Community College welcomes students from other countries. The College is authorized by the U.S. Justice Department to issue the necessary Certificate of Eligibility for Nonimmigrant F-1 Student Status (Form I-20) to international students planning to enter the U.S. and attend BCC on an F-1 Student Visa.

For additional information and for the necessary forms to apply to Broome Community College as an international student, contact the Admissions Office, 607 778-5001; FAX (607) 778-5310; e-mail: admissions@sunybroome.edu

International Admission Requirements

International student applicants should submit the following to the Admissions Office:

1. "Application for Admission" and "International Applicant Information" forms. Both of these forms can be obtained by writing to the Admissions Office.
2. Official or certified copies of all secondary and post-secondary academic records (transcripts). Records should include the grades/marks of all subjects completed and the results of any external examinations. Records should also indicate any diplomas, degrees or certificates earned. If records are not in English, a certified, *literal* translation should be sent *with* the official document.

Other International Admission Requirements, as applicable:

3. English Language Proficiency — for any international applicant whose native language is not English, an acceptable English language proficiency must be demonstrated.

   This requirement can be met by 1) submitting official TOEFL scores of 400 or better *or* 2) submitting official academic records which show the successful completion of four years of English language study at the secondary or higher level school.

   International applicants who submit TOEFL scores of 525 or better will be admitted to the programs of their choice if they have appropriate academic backgrounds. Academic program requirements are listed in the College Catalog. Any applicant who scores below 525 or has not taken the TOEFL can be admitted to the College and will be assigned a special academic advisor for assistance with course registration.

   International applicants whose native languages are not English must take a special language proficiency exam at the College before registering for classes. Based on exam results, an international student may be required to enroll in English As A Second Language coursework each semester until an appropriate proficiency level is met. Along with other students at the College, international students are also required to take a mathematics placement test.
4. Financial Sponsorship — international applicants planning to attend BCC on an *F-1 Student Visa* must demonstrate that they have the financial means to cover their educational and living expenses while attending the College. A BCC "Declaration of Financial Support" form (Affidavit of Support) should be completed and returned with appropriate financial documentation. Upon acceptance to the College, a Certificate of Eligibility for Nonimmigrant F-1 Student Status (Form I-20) will be sent to the applicant. (An "I-20" is a required document to apply for an F-1 Student Visa). International students currently attending a school in the U.S. on an F-1 status and plan to transfer to BCC, must obtain a new I-20 from the College.

Other International Requirements:

Upon enrollment at the College, international students must show evidence of health insurance coverage. International student health plans are available through the College's Student Health Services Office.

Other General Information:

International students who do not meet the English Language proficiency requirements above can be admitted to the College only by special arrangement, and must be in "sponsored" groups of 10 or more students.

The College provides an advisor, through the ACCESS Center, to assist international students in all areas of student life while attending BCC. The advisor will also assist international students in finding housing, since the College does not have on-campus residence halls. The College estimates the cost (tuition, fees and books) and living expenses for one academic year (two semesters) for a full-time student at approximately $12,100.

International students who are seeking transfer credit to BCC, earned from an educational institution outside the USA, are required to submit an official evaluation of foreign educational credentials from an accredited agency. Information on approved agencies is available from the Admissions Office.

Full Opportunity Program

Broome Community College has a Full Opportunity Program, which is designed to give every individual a chance to fulfill his/her own personal goals and potential.

This means that all Broome County applicants who have graduated from high school within the prior year, or applicants who have been released from active duty with the Armed Forces of the United States within the prior year, are given priority for admission until March 1 and are guaranteed admission to the College, but not necessarily assured of space in the programs of their choice. To be admitted into any programs of study, all applicants must meet the academic requirements of those programs. When students do not have the required academic background for a particular curriculum, they will be accepted into a program or selection of courses for which they are qualified, if space is available. Some students may require more than two years to complete a program of study.

Broome Community College does not discriminate on the basis of race, sex, color, religion, age, national origin, disability, marital status, sexual orientation, or status as a disabled veteran or veteran of the Vietnam era in the recruitment or education of students; the recruitment and employment of faculty and staff; or the operation of any of its programs or activities. Where relevant, state and federal laws apply.

Credit Evaluation

Transfer Credit

College level course credits earned at regionally accredited post-secondary institutions can be transferred to Broome Community College subject to the approval of the Department Chairperson/Coordinator and with the following provisions:

1. Grades earned at other institutions will not be entered into the cumulative grade-point average (GPA) at Broome Community College. Students must in all instances submit to the College Admissions Office official transcripts of all college level work taken and/or being taken at another college before formal transfer credit acceptance will be granted.
2. Grades of "C" or higher are transferable, and "C-" and "D" grades may be transferable with the approval of the Department Chairperson by review of an official transcript.

Advanced Placement Examination (AP)

The College will recognize for credit the AP examinations of the College Entrance Examination Board. A score of three or above is generally acceptable for credit, but each academic department establishes its policy. Laboratory courses may require additional lab work for full credit for a college course. Credit awarded will be handled as a transfer credit.

College Proficiency Exams (CP)

The CP exams of the University of the State of New York will be recognized for credit upon approval by the appropriate department. Credit awarded will be handled as transfer credit.

Requirements and/or Recommendations – Academic Preparations for Admissions

Curricula	Requirement/ Recommendation
Accounting Business (General Emphasis) Office Administration Financial Services Hotel/Restaurant Management Management Manufacturing Resources Management Marketing Paralegal Travel & Tourism	Regents Math I OR AM I,II[4]
Business Information Management Entrepreneurship Health Care Services Administration	Regents Math I,II AM I,II,III[4]
Business Administration Business Administration International Business Emphasis	Regents Math I,II,III AM I,II,III,IV[4]
Chemical Dependency Counseling Communication and Media Arts Criminal Justice - Corrections Criminal Justice - Police Early Childhood Fire Protection Technology General Studies: Art/Design, Music, Acting/Theater, Elementary Education Human Services Individual Studies Liberal Arts	No Requirements but Recommended High School courses include: 4 units English 4 units Math (Regents I, II,III, Math 12) 3 units Science 3 units Foreign Language 4 units Social Studies
Certified Dental Assisting	Biology or ABC I[4,5] Recommended: Regents Math I OR AM I,II Regents or General Chemistry
Chemical Engineering Technology[1]	Regents Chemistry OR ABC I and II[4] (minimum grade 74) Regents Math I,II,III OR AM I,II,III,IV[4,5]
Civil Engineering Technology[1] Computer Information Systems[1,2] Computer Science[1,2] Computer Technology[1,2] Mechanical Engineering Technology Telecommunications Technology[1]	Regents Math I,II,III OR AM I,II,III,IV[4,5] Regents Physics OR PT I and II (minimum grade 74 for all courses)
Electrical Engineering Technology[1]	Regents Math I,II,III OR AM I,II,III,IV[4,5] (minimum grade 74) Regents Physics[5] (minimum grade 65) OR PT I and II[4,5] (minimum grade 74)
Engineering Science[1]	Regents Math I,II,III OR AM I,II,III,IV[4,5] Advanced Algebra OR Pre-Calculus Math Regents Chemistry Regents Physics OR PT I,II[5] Regents Biology (recommended) (minimum grade 80 all courses)

ALL GRADES ARE FINAL CLASS AVERAGES, NOT REGENTS EXAM GRADES

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[1] BCC has a developmental program that enables students lacking the proper academic preparation for professional level courses to enroll in appropriate credit or non-credit courses that will qualify them. They can take these courses at BCC or elsewhere preceding their admission. The College reserves the right, however, to consider for enrollment in professional courses only those applicants who have completed all prerequisites by June 30. Applicants who elect to take these courses during the spring and fall semesters would need more than two years to complete the curriculum.

[2] In these programs, BCC gives priority for admissions to Broome County residents who will graduate from high school this academic year, or are service veterans. Students interested in a degree in the Health Science or Computer Studies curriculums who enter the College in another program are cautioned that there is no guarantee that a petition to transfer will be approved. They should discuss the possibilities with the appropriate department chairperson.

[3] If prerequisite courses are taken at BCC, a grade of 2.0 or better is required.

[4] AM is Applied Math as defined by Tech Prep. P.T. is Principles of Technology. ABC is Applied Biology & Chemistry.

[5] Equivalent course substitutions may be determined by the department chair/dean.

Curricula	**Requirement/ Recommendation**
Dental Hygiene[1,2,3]	Regents Math I OR AM I,II[4,5] Regents Biology Regents or General Chemistry[5] OR ABC I,II[4] (minimum grade 74 in General)
Health Information Technology[1,2,3]	Regents Math I OR AM I,II[4,5] Regents Biology[5] OR ABC I,II[4]
Medical Assistant[1,2,3]	Regents Math I OR AM I,II[4,5] (minimum grade 74) Regents Biology[5] OR ABC I and II[4]
Medical Laboratory Technology[1,2,3]	Regents Math I,II,III OR AM I,II,III,IV[4,5] Regents Biology[5] and Regents Chemistry[5] OR ABC I and II[4] (minimum grade 74 for Math & Chemistry)
Nursing[1,2,3]	Regents Math I OR AM I,II[4,5] Regents Biology[5] and Regents Chemistry[5] OR ABC I and II[4] (minimum grade 74 all courses)
Physical Therapist Assistant[1,2,3]	Regents Math I,II OR AM I,II,III[4,5] Regents Biology[5] and Regents Chemistry[5] OR ABC I,II[4] (minimum grade 74 in all courses)
Phlebotomy*	No Requirements But Recommended courses include: 4 units English 3 units Math 3 units Science
Radiology Technology[1,2,3]	Regents Math I,II OR AM I,II,III[4,5] Regents Biology[5] OR ABC I,II[4] Regents Physics[5] OR PT I and II (minimum grade 74 for all courses)

ALL GRADES ARE FINAL CLASS AVERAGES, NOT REGENTS EXAM GRADES

*Pending NY State approval

[1] BCC has a developmental program that enables students lacking the proper academic preparation for professional level courses to enroll in appropriate credit or non-credit courses that will qualify them. They can take these courses at BCC or elsewhere preceding their admission. The College reserves the right, however, to consider for enrollment in professional courses only those applicants who have completed all prerequisites by June 30. Applicants who elect to take these courses during the spring and fall semesters would need more than two years to complete the curriculum.

[2] In these programs, BCC gives priority for admissions to Broome County residents who will graduate from high school this academic year, or are service veterans. Students interested in a degree in the Health Science or Computer Studies curriculums who enter the College in another program are cautioned that there is no guarantee that a petition to transfer will be approved. They should discuss the possibilities with the appropriate department chairperson.

[3] If prerequisite courses are taken at BCC, a grade of 2.0 or better is required.

[4] AM is Applied Math as defined by Tech Prep. P.T. is Principles of Technology. ABC is Applied Biology & Chemistry.

[5] Equivalent course substitutions may be determined by the department chair/dean.

Expenses

[1] The BCC Board of Trustees establishes tuition and fee amounts for each semester. The amounts on pages 14 and 15 were established for the 1998-99 year only. Semesters beyond that point are subject to increase.

[2] The College establishes tuition and fee refund policies and procedures each year in accordance with Federal and State mandated regulations. The policies and procedures in this section were established for the year 1998-99. Years beyond that point are subject to changing Federal and State guidelines, thus future college refund policies and procedures are subject to change. The regulations for any particular year are available at Registrar, Financial Aid, and Student Accounts Offices.

Tuition

Tuition and fees are payable at the Student Accounts Office according to a payment schedule released by the College each semester. The responsibility for payment rests upon the student. Both full-time and part-time students who have registered for courses will be "de-registered" if they fail to meet established due dates for tuition/fee payment.

Students who are administratively dropped for non-attendance during the semester continue to have a tuition and fee obligation.

Students Carrying 12 or more Credit or Credit-Equivalent Hours

(considered full-time students)

For New York State residents

- with residency certificate: **$1,134** per semester[1]
- without residency certificate: **$2,268** per semester[1]

For out-of-state residents

- **$2,268** per semester[1]

Tuition Deposit Policy

Students admitted to the College prior to August 1 will be requested to submit a $50 tuition deposit. This payment will be applied toward the Fall semester tuition bill for those students who register. Students who do not register for the Fall semester can obtain a refund of the tuition deposit, through the end of the first week of classes, by submitting a request in writing to the College Controller. At the end of the first week of classes, the tuition deposit is non-refundable.

Students Carrying Fewer than 12 Credit or Credit-Equivalent Hours

(considered part-time students)

For New York State residents

- with residency certificate $95 per credit[1]
- without residency certificate $190 per credit[1]

For out-of-state residents

- $190 per credit hour[1]

NOTE — See "credit equivalent" on page 25 for more information.

Many students may qualify for financial aid, some of which is applicable toward tuition. *See Financial Aid section on pages 16 through 19.*

SEE TUITION REFUND POLICY ON PAGE 15.

Residency Certificate

To qualify for the resident tuition fee, a student is required by law to present *once each academic year,* on or before registration, a residency certificate indicating that he or she has been a legal resident of the State of New York for one year, and of a county for six months.

For Dependent Students

A student who is a dependent of a person who lives **outside** of New York State is considered a resident of that other state for educational purposes, regardless of where the student actually resides.

Broome County Residents

Full-time students admitted to the College will be mailed a copy of the application for residency certificate prior to registration. This application must be completed and presented at the time of tuition payment.

Out-of-County Residents

Full-time students admitted to the College will be mailed a copy of the application for residency certificate prior to registration. The application must be completed, notarized, and presented to the County Treasurer of the *county in which the student resides.* The County Treasurer will then issue a residency certificate to the student. This residency certificate must be presented at the time of tuition payment.

International Students

International students will be considered New York State residents, for tuition purposes, one year after showing intent to make New York State their permanent domicile. (Example: Passport stamped, "Application for permanent residency status pending.") Certain visa types preclude the ability to show such intent.

Refugees

Refugees who come to New York State immediately after leaving their "home" country will be given New York State Residency status immediately. Refugees who first reside in another state after leaving their "home" country will be required to fulfill a one year residency term before being considered a New York State resident for tuition purposes.

Part-Time Students

Part-time students must meet the same requirements as stated above. The application for residency certificate form is available at the Student Accounts Office.

The completed residency forms are required once each academic year.

Failure to comply with this requirement within 30 days of registration will result in assessment of non-resident tuition charges.

College Fees[1] (mandatory)

College fees are non-refundable.

Matriculation Fee (one-time fee)	$40[1]
Service Fee (Non-Matriculated) (per semester)	$ 5[1]
Late Registration Fee (begins on first day of semester)	$10[1]
Vehicle Registration Fee	$25[1]
Rush Transcript Fee	$ 5[1]
Fax Fee	$ 5[1]
Returned Check Fee	$20[1]
Credit by Examination	
Non-Laboratory Course	$50[1] plus $15 per credit hour
Laboratory Course	$50[1] plus $15 per credit hour plus $10 for each clock hour of lab examination (maximum $165)[1]
Credit by Evaluation (Portfolio Assessment)	$75[1] plus $15 per credit hour[1]
Laboratory Fees (Depending on cost intensive nature of the Lab)	$12 or $18 per lab[1]
Health Science Clinical Makeup Fee	$35[1]
Technology Fee (per semester)	
full-time	$25[2]
part-time or summer	$25[2]

Courses requiring outside services, such as PED 170 Trail Riding, Music Lessons, etc., may require students to pay additional out of pocket expenses directly to those service providers.

Student Fees (mandatory)

Student Fees are non-refundable.

Student Activity Fee

Full-Time Student	$50 per semester[1]
Part-Time Student	$4 per credit hour[1]

The activity fee entitles all students to admission to varsity games, convocations, dances and parties, as well as a subscription to the student newspaper and the opportunity to participate in a varied program of co-curricular activities, including intramural athletics.

The Student Activity Fee funds the following types of programs on campus: the Student Handbook and Planner, Orientation, 35 clubs and organizations, 12 athletic teams, intramural sports, travel, noontime programs, family events, films, picnics and more.

Accident Insurance, Student Health Service Fee

Full-Time Student (mandatory) Accident Insurance	$13 per year[1]
Health Service Fee (mandatory) Full-Time Students	$5 per semester[1]
Part-Time Students	$3 per semester[1]

Money collected from the Health Service fee is used for physician services, drugs, supplies, educational material, diagnostic equipment, special health programs and related Health Service expenses. The fee is non-refundable if the student withdraws from the College.

Participants in the New York Civil Service Employees Association Labor Education Action Program (LEAP) will be subject to the tuition refund regulations specified in the LEAP guidelines.

The accident policy covers the student for 12 months commencing the first day of classes for expenses incurred as a result of any accident, on or off campus. Maximum coverage is $2,500 per accident. Claim forms are available in the Student Health Services office during the year, and must be filed with Student Health Services before expenses will be paid. Part-time students may also enroll in the accident insurance program. The fees and coverage are the same. Contact Student Health Services for more information. *Students who withdraw and wish a refund of their accident policy must apply directly to the insurance company.*

International Student Health Insurance

International students must show that they have health insurance coverage before they may enroll at the College. Health Insurance is available through the College at the following rates (which may be subject to change): Fall semester - $220[1], Spring semester - $176[1], and Summer - $132[1]. Claim forms are available in the Student Health Services office during the year. Students who withdraw and wish a refund of their health insurance fee must apply directly to the insurance company. *Note that the "Health Insurance" mentioned in this paragraph is different from the "Health Service Fee," which is not an insurance.*

Medical Insurance

The College does not provide medical insurance. Information about such insurance is available through Student Health Services and directly from insurance companies.

Books, Supplies, Uniforms and Other Expenses

Students are expected to purchase textbooks and related instructional materials for the courses in which they are enrolled. These may be purchased at the Campus Store located in the Student Center Building. The average cost of textbooks and required supplies varies depending on curriculum and ranges between $200 and $700 per semester.

In the Health Science curriculums students will provide, at their own expense, their own transportation to off-campus locations for necessary clinical and other experience. Students are also required to have a physical examination which may cost as much as $100.

In addition, some curriculums require uniforms. Among these are Hotel/Restaurant, Nursing, Radiologic Technology, Medical Laboratory Technology, Medical Assistant and Physical Therapist Assistant. Gym clothes are necessary for physical education classes. Dental instruments and pants-type uniforms are prescribed for Dental Hygiene students.

A Windows-Multi-Media Pentium home computer is strongly recommended for Engineering Science and Computer Studies students.

The following estimated expenses are in addition to the usual cost of text books.

	Freshman	**Senior**
Civil Technology	$ 60	$90
Dental Hygiene	950	350
Electrical Technology	300	300
Engineering Science	325	750
Mechanical Technology	90	90
Medical Assistant	120	135
Medical Lab Technology	50	150
Health Information Technology	105	75
Nursing	435	0
Business Technologies	50	75
Radiologic Technology	400	275
Telecommunications Technology	300	300

Refund Policies, Procedures

Tuition Refund Policy[2]

Effective FALL 1998, New York State has mandated the current refund policy for all SUNY community colleges.

Fall and Spring Semesters

Students who *officially withdraw* from classes during the first three weeks of a *semester* will be entitled to tuition refunds on the following basis - 100% refund before the first day of the semester; 75% on or before day 5 of the semester; 50% on or before day 10 of the semester; and, 25% on or before day 15 of the semester. After day 15 of the semester there is no refund.

"Day of semester" does not refer to specific class meetings. It refers to actual day of the campus wide semester.

FIRST-TIME TITLE IV FINANCIAL AID RECIPIENTS PLEASE SEE TITLE IV FINANCIAL AID REFUND POLICY ON THIS PAGE.

Students dropping any course less than 15 weeks in length will receive 75% refund only during the first week of the course. After that, there will be no refund.

College On The Weekend

Refunded at 100% up to 5 p.m. on first Friday of Weekender classes; 75% refund through the Friday following the first weekend of classes (0% refund thereafter).

Summer Session

Students who withdraw from Summer Session classes will be entitled to only a 25% refund during the first week of the term. After that, there will be no refunds.

Refund Procedure[2]

An application for refund of tuition and fees must be made in writing in the Registrar's Office (W-206). The application must be on the College form provided. The date on which the application is filed is considered the official date of the student's withdrawal and any refund to which the student may be entitled is computed using that date.

Title IV Financial Aid Refund Policy[2]

Students who receive Title IV financial assistance and who are attending BCC for the *first time* will receive tuition and fee refunds on the basis of the pro-rata refund guidelines as mandated by the Higher Education Act Amendment of 1992 if, and only if, they officially withdraw or are administratively withdrawn from the institution. All other cases will follow the regular tuition and fee refund policy. These refunds, by law, must be paid on a priority basis to the Title IV Programs before being paid to the student.

A schedule of the first-time pro-rata refund percentages by day may be obtained by contacting the Student Accounts Office.

Title IV Refund Fee[2]

A fee in the amount equal to the lesser of 5 percent of tuition and fees *or* $100 will be charged to students who receive Title IV financial assistance when a pro-rata refund is made under the provisions of the refund policy pertaining to the Higher Education Act Amendment of 1992.

Other Procedures[2]

Students who defer tuition on Financial Aid and who then become ineligible to receive that aid or any portion of it will be subject to an immediate obligation for payment and/or collection of tuition, fees and disbursements. The College reserves the right to use whatever collection procedures it deems appropriate to satisfy any outstanding debt. The total outstanding debt may include additional costs incurred due to collection activities. The cost will vary depending on the debt. Additional costs may be as much as 33⅓ percent of the debt plus attorney/court fees.

Withholding Diplomas and Transcripts

A student's Official College Transcript and diploma will be withheld if there are outstanding financial or property-returning obligations. These could be to such College offices as Security, Learning Resource Center (Library), Student Accounts, Physical Education, as well as others. Students must settle any such outstanding debts to the College and then present evidence of the settlement to the Office of the Registrar.

Financial Aid

General Information

Considerable financial aid is available at Broome Community College, and the College maintains a Financial Aid Office to help students. Information and applications for financial aid are sent to students who are seeking enrollment when they apply for admission. Any part-time student planning to take three credit hours or more may qualify for financial aid by formally applying and being accepted into a degree or certificate program.

Financial aid at BCC falls into three broad categories — grants that do not have to be repaid, loans on which interest rates are usually low and that have to be repaid after graduation or leaving college, or part-time employment called "Work-Study." Assistance usually comes from a combination of these resources, commonly referred to as a "financial aid package."

Student and Family Resources

"Financial Need" is a term used to describe the funds required by a student to pay for his/her college education in excess of the amount that he/she and parents can afford to pay. Financial need is determined by using a standardized formula, which defines the "initial" or "demonstrated" need. The formula:

Cost of attendance (including tuition, fees, books, room, board, transportation, etc.)
— **Family Contribution** (based on student's and parents' net assets, income, household size, number in college, etc.)
= Financial Need

The Financial Aid Office at Broome Community College operates on the premise that all parents and students have a responsibility to contribute as much as they can toward the cost of the student's education. This contribution plays the primary role in determining the actual initial need.

To qualify for financial aid, a student must be enrolled in a degree program of the College and be taking three credit hours or more, in addition to having initial or demonstrated need. This need can be met in a number of different ways—a combination of grants, loans and work-study funds in varying amounts. This combination is put together by the financial aid administrator and is called a "financial aid package."

Many students would be unable to attend college without financial aid. However, no matter when application for financial aid is made, disbursal of awarded money is not always made on an "as needed" basis. First-time students should have sufficient resources available for living and educational expenses for 12 weeks into a semester to confirm attendance, as per federal regulations. Similarly, returning students should have sufficient resources through eight weeks.

Estimating Expenses[5]

Below is a chart showing the estimated average costs for the 1998-99 college year for student expenses. It covers a 9-month period — the length of the college year, September to May.

	Living w/ Parent Dependents	Not Living w/Parent No dependents
Tuition[5]	$2,268	$2,268
Fees[1,5]	173	173
Books	600	600
Transportation[2]	780	780
Personal Expenses	750	750
Rent	750	3,375
Food	750	1,260
Child Care[3]	NA	NA
Total	**6,071**	**9,206**
Non-NY State Resident:[4,5] (Additional Tuition)	$2,268	$2,268
Total	**$8,339**	**$11,474**

Tuition Deferral Payment

All Financial Aid funds (with the exception of Work-Study, Stafford and Unsubsidized Stafford loans, PLUS loans, EOP, Pauline Parker, and miscellaneous financial aid funds) will be applied to the recipient's outstanding tuition and fees for the current semester. Those applicants without finalized financial aid packages may be able to defer tuition payment by making arrangements with the Financial Aid Office.

Broome Community College does not defer SUMMER tuition based on a TAP award or on a student loan.

Rights and Responsibilities of Recipients

Student recipients of financial aid are the beneficiaries of money made available by a variety of agencies — federal, state, institutional, and/or private. The act of accepting a financial aid award signifies that the recipient knows about, understands, and is willing to comply with both the rights and the responsibilities involved with that award. Thus, it is the recipient's *RIGHT TO KNOW:*

1. What federal, state and institutional financial aid programs are available.
2. The deadlines for submitting application forms for each assistance program.
3. The cost of attending the college and the refund policy.
4. The criteria used by the college to determine academic eligibility.
5. What resources (such as parental contribution) are considered in the calculation of financial need and how much of that need, as determined by the college, has been or will be met, and how (loan, grant and/or work-study).

RIGHTS AND RESPONSIBILITIES OF RECIPIENTS, continued on page 17.

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[1] Lab fees are $12 or $18 per lab (not included in the above estimates).

[2] The transportation allowance may be increased depending on where the student is residing.

[3] A child care allowance is added to the student's budget only when documentation of these expenses is submitted to the Financial Aid Office.

[4] An out-of-state resident must pay additional non-resident tuition.

[5] The tuition and fees amounts had not been officially established when this catalog was being prepared. The amounts may be subject to increase.

— ALL COSTS ARE SUBJECT TO CHANGE —

To be considered for financial aid, students must apply each academic year.

RIGHTS AND RESPONSIBILITIES OF RECIPIENTS, continued from pg. 16

6. How much of the financial aid will have to be repaid, and what portion is a grant (gift-aid). If the aid is a loan, the recipient should know what the interest rate is, the total amount that must be repaid, the repayment procedures, the length of time allowed to repay the loan and when repayment is to begin.
7. How the college determines whether the student recipient is making satisfactory progress and what happens if not.

It is the recipient's RESPONSIBILITY to:

1. Know and understand fully the financial aid program and one's specific financial aid package before signing forms.
2. Make sure that all application forms are completed accurately and submitted, on time, to the right place.
3. Pay special attention to, and accurately complete, the application for student financial aid. Errors can result in long delays in the receipt of financial aid. Intentional misreporting of information on application forms for federal financial aid is a violation of law and is considered a criminal offense subject to penalties under the U.S. Criminal Code.
4. Return any and all additional documentation, verification, correction, and/or new information requested by either the Financial Aid Office or the agency to which the application is submitted.
5. Read and understand all forms that one signs and keep copies of them.
6. Accept responsibility for all agreements signed.
7. Notify the lender of changes in name, address, or school status, if one has a loan.
8. Perform the work that is agreed upon in accepting a Federal Work-Study award.
9. Know and comply with the deadlines for application and/or reapplication for aid.
10. Know and comply with the school's refund procedures.

How to Apply for Financial Aid

Packaging Policy

At Broome Community College the equity concept of financial aid packaging is used. Eligible students are funded on a need basis and in first-come, first-served order.

The Federal Pell Grant and the New York State Tuition Assistance Program (TAP) represent the floor of the package followed by any employment, loans, and grants available.

This kind of financial aid packaging ensures that any student who wishes to attend a post-secondary institution will have the opportunity to obtain the needed funding.

An example of the equity concept:

1. Total Student Costs (Budget)
2. Subtract Resources:
   a. Parental Contribution
   b. Student Contribution
   c. Other Resources
   Initial Financial Need
3. Subtract:
   a. Tuition Assistance Program (TAP) Grant or Estimate
   b. Federal Pell Grant or Estimate

   = Unmet Need for Campus-Based Aid
4. Subtract:
   a. Educational Opportunity Program (EOP)
   b. Federal Perkins Loan, (Formerly NDSL)
   c. FWS
   d. FSEOG
   e. BCC-Grant in Aid

   = Unmet Need

Most students are able to satisfy their unmet need through the Federal Stafford Student Loan Program. The amount of unmet need may vary from year to year.

Federal and State Grants

All financial aid applicants will be expected to apply for two major sources of financial aid: the Federal Pell Grant and New York State's Tuition Assistance Program (TAP). Out of state residents should contact their State Educational Agency or the Financial Aid Office for information on state grant assistance from their state of residence. Although the College provides information, applications, and assistance, these funds are not generated by the College and must be applied for directly by the student to the agency. Students may apply for the Pell and TAP grants with the Free Application for Federal Student Aid (FAFSA) and the New York State TAP application.

Part-time students who enroll for at least 3 but less than 12 credits may be eligible for New York State's Aid for Part-Time Study (APTS) program. Unlike TAP, students must apply directly to the College for determination of eligibility.

Applications and information regarding these and other programs are available at the Financial Aid Office (Student Services Building, Room 213, Phone 778-5028).

Campus-Based Financial Aid

For a student to be considered for both the Federal Pell Grant *and* financial aid administered by the College (Campus-Based Aid), the Financial Aid Office must electronically receive the student's Institutional Student Information Record (ISIR) from the FAFSA processor. Receipt of the ISIR form will allow students to be considered for the following campus-based financial aid, in addition to the Federal Pell Grant:

Federal Campus-Based Aid

- Federal Perkins Loan
- Federal Work-Study (FWS)
- Federal Supplemental Educational Opportunity Grant (FSEOG)

Institutional Campus-Based Aid

- BCC Foundation Grants

The College administers a number of programs which have been established by private individuals, companies, and organizations. These scholarship and grant programs have varying eligibility requirements. Students who wish to apply for these special scholarships should complete the FAFSA.

Priority Funding Dates

Fall Semester	April 1
Spring Semester	November 1

Incoming students should apply for financial aid when they apply for admission. Because all campus-based funds are limited, students are strongly encouraged to submit the appropriate forms at least four weeks before the above priority dates.

Completed applications received prior to April 1 will be given first priority. Applications received after this date will be considered as long as funds are available, and will be completed in date-received order.

The FAFSA should be mailed to the Federal processor before March 1. After processing, the student will receive an acknowledgment and the College will receive an electronic ISIR from the Federal processor. All students are required to complete an FAFSA, regardless of their eligibility for Federal Pell Grant funding, in order to be considered for any of the Federal financial aid programs.

Verification

Once the Financial Aid Office has received the results of your processed application, you may be selected for a process called verification. This is a procedure used to check the accuracy of the information you reported on your federal financial aid application. You may be required to bring or send any supporting documentation that is necessary to verify the information you reported. If selected, you must complete the process before your financial aid can be awarded.

Notification of Decisions

Students are generally notified of the action taken on their application shortly after June 30. Students who apply late will be notified as their folders are completed.

If a student's request for aid is denied, the reasons for the decision are explained. Students may request an appeal of financial aid decisions by writing a letter to the Director of Financial Aid.

NOTE — Students who have been administratively dropped from their class(es) for non-attendance will receive a reduced financial aid award. If financial aid has already been disbursed, a repayment of a portion or all of these funds may be owed to the Federal program.

Satisfactory Academic Progress for TAP, APTS, and Title IV Aid

Federal regulations require aid recipients to maintain "satisfactory academic progress" before receiving Title IV aid (Federal Pell Grant, Federal Perkins Loan, FWS, FSEOG, Federal Stafford Student Loan, Federal Unsubsidized Stafford Loans and FPLUS). The College also requires satisfactory academic progress before students may receive grant assistance from the BCC Foundation or Educational Opportunity Program (EOP). The guidelines used to determine academic progress are outlined on page 22 of the catalog.

Students who have been placed on academic probation may continue to receive financial assistance while on probation. These students have one semester to achieve the minimum standards before facing dismissal from the College.

Students who have been academically dismissed will be denied aid until they meet the criteria set forth for satisfactory academic progress. Students who petition for a waiver of dismissal may be eligible for financial aid under the following conditions: 1. The student is granted an academic petition due to unusual circumstances; 2. After dismissal the student has completed 5 or more credit hours in a single term and received grades of "C" or better in all credit hours attempted. Only one petition of academic dismissal based on unusual circumstances and only one petition of academic dismissal based on completion of 5 or more credit hours is allowed during a student's educational career.

Students who are allowed to continue taking classes but are not in good academic standing are not eligible to receive financial aid.

The College has also adopted New York State Tuition Assistance Program (TAP) and Aid for Part-Time Study (APTS) guidelines which require good academic standing for students to continue receiving TAP & APTS. Contact the Registrar's Office in Room 105 Student Services Building for a copy of the guidelines.

Financial Aid Refund Policies and Procedures

Financial aid refunds will be made for those students who receive tuition and fee refunds in accordance with the College's refund policy (see page 15), and for those students who are administratively withdrawn from classes due to non-attendance (see page 25). Students who are administratively withdrawn for non-attendance will lose 100% of the financial aid received for each course that is dropped. All other students may lose a percentage of their financial aid based on the percentage refund of tuition and fees that they receive.

As mandated by Federal law, the institution will credit refunds of financial aid in the following order:

a. To outstanding balances on FFEL Program loans (i.e. Stafford, Unsubsidized Stafford, and PLUS loans);
b. To outstanding balances on Federal Direct loans;
c. To outstanding balances on Federal Perkins loans;
d. To Federal Pell Grant awards;
e. To Federal SEOG awards;
f. To other Title IV aid programs;
g. To other Federal, state, private or institutional aid; and
h. To the student.

Grants

NOTE — The following financial aid information is current as of Fall 1998. Due to reauthorization of the Higher Education Act, some of this information may be changed during the academic year. Please contact the Financial Aid Office for updated or additional information.

Eligibility	**Amount Per Year**	**Where/ How To Apply**
TUITION ASSISTANCE PROGRAM (TAP)		
Summer TAP Awards are available for students taking six or more credits and who are full time the semester before or after the summer semester.		
Full-time student at any accredited college in New York State. Resident of New York State. Income and academic guidelines involved.	$100 to $4,125, not to exceed 90% of tuition. Based on income.	New York State Higher Educational Services Corp. (HESC) 99 Washington Avenue Albany, N.Y. 12255 Forms are mailed to student by HESC; must apply with FAFSA.
Full-time and part-time students who are US citizens, residents of NY State and served in the armed forces in Indochina between December 22, 1961 and May 7, 1975 who have been discharged from the service under other than dishonorable circumstances.	Up to $1,000 per semester or tuition (whichever is less) for full-time students; Up to $500 per semester or tuition (whichever is less) for part-time students. Cumulative total may not exceed $10,000.	Forms available in the BCC Veterans Services and Financial Aid Office. Full-time students must also apply for Pell and TAP grants; part-time students must apply for Pell grant.
VIETNAM VETERANS TUITION AWARD SUPPLEMENT		
Full-time students that are children of eligible NY State veterans. Eligible veterans must meet specific criteria for eligibility. For further information in regard to eligibility contact the BCC Veterans Service Office.	$450 per year regardless of income or tuition costs for up to four years. In combination with a TAP award may not exceed tuition.	Forms available in the BCC Veterans Services and Financial Aid Office.
Part-time students and residents of New York State, must enroll for at least 3 but less than 12 credit hours. Income and academic guidelines involved.	Amount of tuition or less depending on need and availability of funds.	Forms and further information available in BCC Financial Aid Office. Applications must be submitted no later than the end of the tenth week of classes.
CHILD OF VETERANS AWARD SUPPLEMENT		
Full-time and half-time students with financial need and less than an 82 high school average. Family income must be below a specific level.	Varies according to individual need. Average of $100 per student per academic year.	Application available in the Educational Opportunity Program Office at BCC.

Grants

Eligibility	Amount Per Year	Where/ How To Apply
FEDERAL PELL GRANT PROGRAM		
Accepted and enrolled in at least 3 credit hours as an undergraduate student with demonstrated financial need.	From $400 to $3,000 annually.	College must receive an electronic Institutional Student Information Record (ISIR) from the Federal processor. Forms available in BCC Financial Aid Office and in high school guidance counselor offices after January 1.
FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (FSEOG)		
For full-time or half-time students with demonstrated high financial need. Must also be Federal Pell Grant eligible.	Up to $4,000 depending upon need and cost of college expenses.	College must receive an electronic Institutional Student Information Record (ISIR) from the Federal processor. Forms available in BCC Financial Aid Office and in high school guidance offices after January 1.
BCC FOUNDATION GRANTS		
Full-time or half-time students on a first-come, first-served basis.	Varies according to individual need.	College must receive an electronic Institutional Student Information Record (ISIR) from the Federal processor. Forms available in BCC Financial Aid Office.
NYS AID FOR NATIVE AMERICANS		
Full-time and half-time students.	Varies according to individual need and type of award.	Must file annually with the Bureau of Indian Affairs. Applications are available from the US Department of Interior, Bureau of Indian Affairs, Federal Building Room 523, 100 South Clinton Street, Syracuse, NY.

Loans

Eligibility	Amount Per Year	Where/ How To Apply
FEDERAL PERKINS LOAN		
For full-time or half-time students with demonstrated high financial need. Student borrows from the college on own signature. Awarded on a first-come, first-served basis.	From $200-$3,000 per year. Maximum aggregate amount is $15,000.	College must receive an electronic Institutional Student Information Record (ISIR) from the Federal processor. Forms available in BCC Financial Aid Office and in high school guidance offices after January 1.
FEDERAL STAFFORD STUDENT LOAN		
For full-time or half-time students. Student borrows on own signature from a participating bank. Student must show financial need.	Maximum of $2,625 for the first, $3,500 for the second, and $5,500 for the third and fourth years of an undergraduate program – not to exceed a cumulative total of $23,000 for dependent students or $46,000 for independent students.	Federal Stafford Loan applications can be obtained at most banks, credit unions, or at the Financial Aid Office. Applications must be submitted to the Financial Aid Office for processing along with an electronic Institutional Student Information Record (ISIR).
FEDERAL PARENT LOAN FOR UNDERGRADUATE STUDENTS (FPLUS)		
Loan program for parents of dependent undergraduate students enrolled at least half-time.	No annual or cumulative limits. Loan amounts may not exceed the student's cost of attendance minus other estimated financial aid. Parent borrower will be subject to a credit history review and may be determined ineligible due to an adverse credit history.	Federal PLUS applications can be obtained at most banks, credit unions, or at the Financial Aid Office. Applications must be submitted to the Financial Aid Office for processing along with an electronic Institutional Student Information Record (ISIR).
UNSUBSIDIZED FEDERAL STAFFORD STUDENT LOAN		
For full-time or half-time students. Student borrows on own signature from a participating bank. No financial need required. Student must make interest payments or capitalize interest payments while attending school.	Same as Federal Stafford Student Loan program. Combination of subsidized and unsubsidized Federal Stafford Student Loans may not exceed annual and cumulative limits for loans under the Federal Stafford Loan program. Independent students may borrow an additional $4,000 above the Stafford Loan limits per year based on cost of attendance minus other aid.	Same as Federal Stafford Student Loan program.

Employment

FEDERAL WORK-STUDY employment is available for full-time or half-time students with financial need. It is awarded on a first-come, first-served basis.

Students may work up to 20 hours a week when classes are in session or up to 37-1/2 hours a week during vacation. Pay is minimum wage. Forms and additional information are available in BCC Financial Aid Office.

Financial Aid Time Frame

Students may receive Federal financial aid for only up to 150% of the time/credits necessary to graduate from their program of study (i.e. if the degree requirement equals 60 credit hours, the student may attempt up to 90 credit hours with funding). Beginning with the first semester of matriculation into a degree granting program of study, all college level credit hours (i.e. courses designated at the 100 level or higher) that a student registers for (excluding those dropped during the first week of classes or those never attended) are counted toward this time frame. Credit hours that a student attempts at their own expense also count toward the 150% time limit. Once a student has reached the maximum number of attempted credit hours allowable for their program of study, they are no longer eligible to receive any form of Federal financial aid.

Changes in major do not set back a student's maximum allowable time frame. Rather, a change in major program may impact the total number of credits allowable in either a positive or a negative direction, based on the new degree requirement.

Remedial courses (i.e. those designated below the 100 level) and English as a Second Language (ESL) courses that a student attempts do not count toward the 150% time frame. Students are allowed to attempt up to 30 credit hours of remedial course work and 30 credit hours of ESL course work with Federal funding. Once a student has attempted up to this limit, they are no longer eligible to receive any form of Federal financial aid for additional remedial or ESL course work attempted.

New York State has set up a separate policy in regard to time frames for TAP recipients. Students attending two-year colleges in the State of NY (with the exception of those students enrolled in the Educational Opportunity Program (EOP)) may only receive up to (3) years of TAP payments.

Academic Information

Degree and General Requirements

1. Successful completion of all courses for the degree as contained in this Catalog.
2. A 2.00 Cumulative GRADE POINT AVERAGE in those courses applicable to the degree.
3. Filing of an Application for Graduation in the final semester.
4. Recommendation of the faculty that the degree requirements have been met by the student.
5. Satisfaction of all obligations to the College.
6. Specific Curriculum Requirements.
7. Satisfaction of General Education Requirements (see page 21).

Satisfaction of the equivalent of a semester's course of study (12 credits) at BCC. This is the college's *residency requirement* and is most important for transfer students.

The Associate in Applied Science Degree (AAS)

This degree is awarded to graduates of curriculums in these fields of study.

Accounting
Business Information Management*
Chemical Dependency Counseling
Chemical Engineering Technology
Civil Engineering Technology
Computer Information Systems
Computer Technology
Criminal Justice-Police
Dental Hygiene
Early Childhood
Electrical Engineering Technology
Emergency Medical Technology-Paramedic
Financial Services
Fire Protection Technology
Health Information Technology
Hotel/Restaurant Management
Individual Studies
Industrial Technology
Industrial Technology: Quality Assurance
Manufacturing Resources Management[4]
Marketing/Management/Sales
Mechanical Engineering Technology
Medical Assistant
Medical Laboratory Technology
Nursing
Office Administration
Paralegal
Physical Therapist Assistant
Radiologic Technology
Telecommunications Technology
Travel and Tourism

Curriculum Requirements

a. The minimum number of credits in a student's major field as determined by each academic department. These are courses intrinsic to, and required by, the various curriculums.
b. A minimum of 20 credits in Liberal Arts and Sciences courses will include:
    1. Social Sciences: a minimum of 6 credits including 3 in designated citizenship-related courses
    2. Natural and Physical Sciences (including mathematics): a minimum of 6 credits
    3. Humanities: a minimum of 6 credits in designated English courses
    4. Two writing emphasis "W" courses
    5. Satisfaction of General Education requirements. See page 21.
c. Satisfactory completion of all courses in a curriculum or as approved in a department.
d. Summer clinical experience required for graduation in curricula noted.

The Associate in Arts Degree (AA)

This degree is awarded to graduates in the Liberal Arts and Human Services curriculum.

Liberal Arts and Human Services requirements are distributed as follows:

a. English: 12 credits, including ENG 110, 111, 220, and one LIT elective.
b. History: a minimum of 6 credits including HIS 115.
c. Humanities: a minimum of 6 credits (3 in Philosophy and a foreign language per advisement).
d. Course III H.S. one course required at BCC; all others will need to take two courses at BCC.
e. Natural and Physical Sciences: a minimum of 8 credits.
f. Social Sciences: a minimum of 6 credits including 3 in designated citizenship courses.
g. Electives: 10-25 credits. A maximum of 16 credits may be taken outside the offerings in Liberal Arts and Related Careers.
h. Completion of two writing emphasis "W" courses.
i. Physical Education: 1 credit of "Fitness" courses.
j. Satisfactory completion of all courses in a curriculum, or as approved in a department.

The Associate in Science Degree (AS)

This degree is awarded to graduates in these fields of study:

Business Administration
Business Administration: Healthcare Services Administration
Business Administration: International Business
Communication and Media Arts
Computer Science
Criminal Justice - Corrections
Engineering Science
Human Services
Individual Studies
Liberal Arts and Sciences: Science option
Liberal Arts: General Studies
Management[4]

A.S. Curriculum Requirements:

a. At least 30 credits in the humanities, natural sciences, mathematics, and social sciences.
b. Physical Education — 1 credit of Fitness PED for Business Administration, Computer Science, Engineering Science, and Liberal Arts and Related Careers students.
c. Two writing emphasis "W" courses.
d. Satisfaction of General Education requirements.

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[4] Indicates pending NYS approval

General Education Requirements

Overview

As part of its commitment to provide every graduate with the skills and knowledge essential for a full and productive life, Broome Community College has developed an integrated program of general education for every course of study. General Education's aims are to acquaint students with the concerns and obligations common to all citizens of a democratic society, and to equip them with the intellectual skills and dispositions to participate effectively in all aspects of human endeavor.

These General Education requirements are built into the degree programs which are displayed on pages 41-107. However, students are responsible for making sure that they have met General Education requirements for the AA, AS, and AAS degrees.

Broome Community College's General Education program strives to ensure that each graduate will:

1. communicate effectively orally and in writing.
2. think clearly and critically.
3. become sensitive to the ethical dilemmas of daily life and experienced in moral reasoning, discourse, and judgment.
4. embrace one's civic obligation to be informed about and participate in public affairs.
5. acquire a global outlook and appreciate human and cultural diversity.
6. gain facility in quantitative analysis, and acquire knowledge of scientific and technological concepts, procedures, achievements and concerns.
7. understand and apply the elements of good health and physical fitness.

These goals are pursued in a variety of contexts: in courses which all students are required to take, such as College writing and writing emphasis ("W") courses, in a range of social science and humanities courses, in mathematics and science courses, and in technical courses in business, health sciences, and technology.

Listed below are the specific General Education requirements with the seven objectives preceding shown in parentheses and in priority order.

- English 110/111 ....(Objectives 1,2)
- Two writing emphasis "W" courses ....(Objectives 1,2)
- English 220[2] ....(Objectives 1,2,3,5)
- Two Social Science courses. *One* of these must be from a designated "civic education" list[1] ....(Objectives 4,5,2,3)
- Mathematics and science courses requirements per curriculum....................(Objectives 6,2,4)
- Physical education requirements per curriculum[3]..........................(Objective 7)

Writing Emphasis Courses

Approximately fifty courses have been designated "writing emphasis" ("W") offerings. In these courses, writing about the subject matter being studied is an integral part both of the learning process and the course objectives. To fulfill General Education requirements, students must complete 2 writing emphasis ("W") courses. These "W" courses are to be taken after completing ENG 110 and before enrolling in ENG 220. Students should consult the Master Schedule at each registration period, as well as their advisors, in choosing "W" courses.

Waiver of Degree Requirements

Students seeking waivers of degree requirements should consult their program chairpersons.

Dual Degree Award

Students seeking two degrees from the college should consult their chairpersons and/or deans to determine their eligibility under State University of New York guidelines.

Graduation

Broome Community College will conduct one formal graduation ceremony each year in the spring. All candidates for degrees may participate in the ceremony. A candidate is a student who will complete his/her degree requirements at the conclusion of the fall, spring, or summer semester. Candidates must have filed their "Application to Graduate" and have been recommended as candidates by the chairperson of their academic department. Students who complete their degree requirements at the end of the fall semester will be invited to attend the next graduation ceremony.

Declaration of Graduation Candidacy

Students intending to complete all degree requirements within a given semester are required to declare their intention to do so by filing an "Application for Graduation" with the Office of the Registrar.

Applications for Graduation should be filed by:

Spring Semester — March 14

Summer Semester — July 15

Fall Semester — October 15

Students filing after these dates will be considered as graduates for the semester but may not receive their diplomas in a timely fashion or have their names indicated in the Commencement Booklet (Spring semester). No application for candidacy will be accepted after the last day of classes of the term being applied for. Students applying after that date will be considered graduates of the following semester, or of the semester/year in which they file a candidacy form.

Graduation with Honors

Students who graduate with a cumulative grade point average of 3.80 or better will receive the distinction of graduating with "High Honors" and those who graduate with a cumulative grade point average between 3.50 and 3.79 inclusive will graduate with "Honors."

Certificate Programs

Broome Community College also has certificate programs which are less than two years in length, have more specific objectives than the associate degree offerings, and consist of about one year of college credit. Some are designed to prepare students for jobs that require specialized higher education, but not necessarily a college degree; some provide students with an opportunity to upgrade their academic backgrounds or expand their qualifications for a particular field of study; and some offer college credits and additional training for people already working in the field.

Most of the certificate offerings carry college credits, and can lead a person into some of Broome Community College's degree-granting curriculums. They can be taken on a full-time or part-time basis, and most of them are offered in the evening although some are available through day classes only. No specific high school courses are required for enrollment.

Certificate Programs

1. Business Skills
2. Certified Dental Assisting
3. Criminal Justice-Corrections
4. Desktop Publishing[4]
5. Dietary Manager
6. Early Childhood
7. Fire Protection Technology
8. Human Services
9. Industrial Technology; e.g.
    10. Civil
    11. Electrical
    12. Industrial Maintenance
    13. Mechanical/CAD
    14. Mechanical/CADCAM
15. Manufacturing Resources Management[4]
16. Medical Transcription
17. Office Technology
18. Paralegal Certificate
19. Phlebotomy[4]
20. Purchasing[4]
21. Records Information Management Professional Certificate (Requires completion of a 2-year degree or minimum of 2 years experience in a related career.)
22. Website Development and Management[4]

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[1] CTP275, ECO110/111, HIS 130/131, POS 201/204, SOC 111, SOS 111/120/290

[2] Engineering Technology students take ENG 150. Medical Laboratory Technology students will substitute a designated LIT course for ENG 220 and fulfill writing requirements through special arrangements.

[3] Students in transfer curricula must select courses from: PED 118, 119, 127, 135, 137, 143, 144, 146, 147, 148, 173.

[4] Indicates pending NYS approval.

*Pending NYS approval for title change.

Standards for Academic Progress

Minimum Grade Point Average

In order to be in good academic standing and to be making academic progress toward a degree or certificate, a student must meet a minimum cumulative grade point average and successfully accumulate credits according to the following standards:

1) Grade Point Average

Credits Attempted	Minimum Cumulative GPA
12-20	1.50
21-40	1.75
41-upward	2.00

2) Successful Accumulation of Credits

Students must successfully pass ("D" grade or better) a total number of credits according to the following standard:

Credits Attempted	Credits Earned
20	12
40	24
60	36
80	48
100	60
120	72
140	84
160	96

By the time a student has attempted 20 credits, he/she must have successfully earned 12 credits. Likewise, 40 credits trigger the 24 credit minimum requirement. Any course in which a student is enrolled past the first week of classes is considered an attempted hour. Developmental courses do not give earned credit toward a degree at the college, but they are equivalent to the appropriate number of earned credits for academic standing.

Probation

Students' records will be reviewed at the end of each semester by the Registrar. Students who have not met the minimum cumulative standards will be placed on probation. During this probationary time, the student is expected to remain in contact with his/her advisor, department chairperson, or division dean.

Continued Probation

Once on probation, a student must achieve a minimum *semester* GPA of 2.00, and must complete/earn at least 50% of their attempted credit hours for the *semester* to avoid dismissal. Students who meet these minimum probationary standards but still do not meet the minimum cumulative standards for academic progress will continue on probation.

Dismissal

If a student does not meet the minimum probationary standards at the end of the probationary semester, the student will be dismissed from the College. Notification of dismissal will be sent by the College Registrar.

Attendance After Dismissal

To continue in attendance, a dismissed student must submit a *Petition for Academic Continuance* to his or her Divisional Dean. Petitions can be obtained from the Dean's Office. Based on a review of the student's academic record and discussions with the student, the Dean will determine the student's status as follows:

Petition Dismissal:

1. In rare cases clearly documented "extenuating circumstances" directly contributing to the student's academic failure may be considered by the Divisional Dean. A student may receive only one such petition for "extenuating circumstances" during his/her enrollment at the College.

Part-Time Enrollment:

2. With the dean's approval students may continue in the next semester on a part-time basis. The intent of allowing such part-time enrollment in an approved course of study is to afford the student the opportunity to complete a successful semester. Students permitted to attend on a part-time basis who successfully achieve "C" grades or better in *two or more* courses approved by the dean will be allowed to return to full-time status in the following semester.

In either case, the student will continue on probation for the following semester and will be expected to meet the minimum probationary standards to avoid dismissal. A dean's waiver does not guarantee continuity of financial aid.

Denial of Petition/Leave of Absence and Readmission:

3. The Divisional Dean may deny the student's petition. Following absence from the college for a semester or more, students must reapply for admission and petition the dean for continuance of study.

Academic Grievance Procedure

Information about the academic grievance procedure is available in the Student Handbook and through the Office of the Vice President of Academic Affairs.

Academic Standards for Clinical Education

Academic Standards for Clinical Education in the Health Sciences Division programs require dismissal of students who fail to meet established academic objectives for the physical safety, psychological safety, and confidentiality of patients.

Dismissal/Readmittance for Degree Programs

This policy applies to the following programs — Dental Hygiene, Engineering Science, Medical Assisting, Medical Laboratory Technology, Nursing, Business Information Technology curriculums, Physical Therapist Assistant, and Radiologic Technology.

A student must demonstrate discernable progress toward the achievement of a degree in a given program of study. If a student fails one or more introductory courses in a major sequence, as determined by the department, he/she may be dismissed by the department from that program of study — but not necessarily from the College.

To be considered for readmission to the program, the student must meet with the appropriate Department Chairperson who will make the determination. In the case of programs that have limited space for freshmen, the Admissions Office shall notify the student of his/her readmittance into the program and adjust accordingly the number of spaces available for new freshmen. A maximum of 10% of the total number of available spaces for freshmen in a program may be used for readmitted students.

Grading Information

This grading policy has been adopted by the College commencing with the Fall 1992 semester. Grades earned by students at the College prior to that date will remain as recorded.

Letter Grade System

Grades	Quality Points per Credit Hours	Explanation
A	4.0	Superior Achievement
A–	3.7	
B+	3.3	
B	3.0	Commendable Achievement
B–	2.7	
C+	2.3	
C	2.0	Satisfactory Achievement
C–	1.7	
D	1.0	Minimal Achievement
F	0.0	Unsatisfactory or withdrawal after 10th week
S	—	Satisfactory
U	—	Unsatisfactory or withdrawal after 10th week
W	—	Withdrawn from a course between the 4th and 10th week (See "W" Grade below)
I	—	Incomplete due to special circumstances (See "I" grade conditions)
IP	—	"In Progress" for courses in which student is permitted one additional semester to complete
AU	—	Audit

Grade Point Average

Each grade carries a specified number of honor points — 4.0 for an A, 3.7 for an A–, 3.3 for a B+ — as described in the section on Grading Information. To determine a student's grade point average, multiply the number of honor points earned, according to the letter grade, by the number of credits for the course. Add these together and divide the sum by the total number of credits.

A grade point average (GPA) is calculated for each semester the student attends and a cumulative summary is also shown on the student's grade report and academic transcript.

For purposes of graduation eligibility, only those courses required for the degree will be used to determine if the criteria for a 2.0 in courses applicable to the degree has been met. This calculation will reflect the Program grade point average in the student's field of study and will be fixed as of graduation. Any courses taken after that will not change the graduation GPA and will not be entered into the previous GPA in any way. The cumulative GPA, however, will reflect all courses taken by the student unless a course has been repeated.

"S" and "U" Grades

The S and U grade will apply only to specific courses determined by the appropriate departments and approved by the Vice-President for Academic Affairs. Such courses will not affect the Grade Point Average (GPA).

"W" Grade

It is the student's responsibility to initiate action to receive a grade of W within the 4th and 10th weeks inclusive. Students cannot receive a "W" grade after the 10th week.

"W" or "F" grade periods for courses which meet less than full semester will be determined by the Registrar's office.

"I" Incomplete Grade

An "I" or incomplete grade signifies that coursework cannot be completed during the term due to extenuating circumstances.

The "I" or incomplete grade shall be assigned by instructors only in cases where they have agreed to grant students extensions to complete coursework and a contract has been arranged between the student and instructor.

To petition for an "I" grade the student must contact the instructor prior to the last class to arrange for the completion of the unfinished work. The instructor will file with the Office of the Registrar an "Incomplete Contract" form, outlining the provisions to complete the "I" grade, including *an agreed upon time limit that shall not exceed the last day of the next major semester.* The instructor may grant an extension for an additional semester by completing another "I" Contract.

After the student has completed the work, the instructor will submit a "Notification of Grade Change" form to the Registrar for removal of the "I" grade. If the student does not meet the time limit, the instructor shall direct the Registrar to record the appropriate grade.

When the Registrar is not notified by the instructor of a grade change, the Registrar will convert the "I" grades to "F" or "U" at the end of the next semester.

An instructor submitting a grade change for an "I" grade which has been converted to an "F" must follow the regular grade change provisions.

"IP" Grades

Some Developmental Courses allow the assignment of an "IP" or In-Progress grade when the course may require more than one semester to repeat. The student must re-register for the course. When the course is completed, the student will receive the grade assigned (generally an "S" or "U" in the last semester and the prior "IP" grade will be retained).

If the "IP" is not completed (the student does not re-register or leaves the institution), the former "IP" grade will be changed to a "U" at the beginning of the first semester (Spring or Fall only) in which the student has not re-registered for the course.

A student can receive the grade of "IP" only once for a course.

Audit

The term "Audit" designates a status, not a grade. The letters AU will appear next to the course name on the transcript.

Repeating Courses

Permission of a matriculated student's department chairperson or divisional advisor is required in order to:

a. repeat a failed course more than once.

b. repeat a course in which a student has received a passing grade.

If a course is repeated, the higher grade will be included in the cumulative grade point average. If a required course is failed, the department or the dean may allow the student to substitute an equivalent or similar course rather than repeat the failed course. In such cases, the higher grade will be included in the cumulative grade point average. All grades will appear on the student's transcript.

A course in which a grade of W was previously received is not considered a repeat.

Students repeating a course they have already passed (a "D" grade or better) may not be able to use that course as part of their calculation for full-time status for certification under the New York State Tuition Assistance Program (TAP) and should be advised to check with the Office of the Registrar before registering for the repeat course.

Grades Appeals

Broome Community College has established a procedure to provide students an opportunity to appeal grades in any particular course(s) or academic dismissal. Copies of the Student Academic Appeal procedure are available in the offices of the Divisional Deans. The policy also appears in the Student Handbook.

President's/Dean's List

Full-time students who have a semester grade point average 3.80 or better will be named to the President's List. Such students must successfully complete a minimum of 12 credit hours and have no "I" grade for that semester. *Courses which use the S or U or credit equivalent grade may not be among the 12 hours.*

Full-time students who have a semester grade point average between 3.50 and 3.79 inclusive will be named to the Dean's List. Such students must successfully complete a minimum of 12 credit hours and have no "I" grade for that semester. *Courses which use the S or U or credit equivalent grade may not be among the 12 hours.*

Part-time students can earn a place on the President's or Dean's List by having the appropriate cumulative grade point average for their most recent semester that include at least 12 credit hours and have no "I" grade for that semester. *Courses which use the S or U credit equivalent grade may not be among the 12 hours*. Part-time students should contact the Registrar's Office if they have the appropriate grades.

Registration and Student Status

Late Registration:

Late registration for credit courses may be permitted during the first week of classes depending on program and course availability. However, no students will be admitted to any class after the 2nd week of that class.

A late initial registration fee will be charged during the week in which late registration is permitted.

Exceptions to this regulation may be made by a Division Dean.

Dropping a Course:

For a student to drop a course, an official "Drop/Add" form needs to be signed by the Department Chairperson or an authorized College Advisor, and filed with the Registrar.

Telling the instructor, or any office other than the Registrar's, by any means other than in writing on an official Drop/Add form, is NOT sufficient notice of withdrawal.

One exception to the above rule is schedule changes necessitated by adding or dropping sections. In these instances, the process may be initiated by the Department or the Registrar.

The College reserves the right to administratively withdraw any student from any course for non-attendance. The Registrar coordinates this process.

Full semester courses may be officially dropped by students without receiving a "W" only within the first four weeks of class. Courses dropped within the fifth and tenth weeks result in a "W" for the dropped course. "W" or "F" grade periods for courses which meet less than full semester will be determined by the Registrar's Office.

Adding a Course:

Through the first week of classes, students may add courses with an official Drop/Add form signed and authorized by a College Advisor.

After one week of classes, the addition of courses or changing of sections requires the approval of the Divisional Dean or his/her designee. The primary exceptions are courses where, upon advisement, a student may move to a lower level course.

In all cases, students must file the "Drop/Add" forms in order to become officially registered in additional courses.

Students who attend classes in which their names do not appear on the class list will be referred to the Registrar. Students are required to then present an official approved add/drop form to the instructor.

Termination from Full-Time Studies:

Students who decide to withdraw from the College must complete the proper termination forms available from the Counseling and Student Development Center. Failure to officially withdraw may cause the individual to lose any possible refund of tuition. In addition, the student may receive an "F" grade for all courses.

Withdrawal from the College

Broome Community College has committed itself to a philosophy of providing whatever assistance is necessary to aid the student in completing his/her academic goals. Students are strongly encouraged to seek academic and personal counseling prior to any withdrawal.

Any student who decides to withdraw from the College must obtain a signed drop form from their department and complete a withdrawal form. The withdrawal form is available in the ACCESS Center. Failure to comply may cause the individual to lose any possible refund fees or may negatively impact future financial aid resources.

Medical Withdrawal:

Verified medical or psychological reasons directly preventing the student from completing classes may be considered by the Divisional Dean for medical withdrawal. A student must begin the process by completing a drop form and obtaining an application for medical withdrawal at the Registrar's Office.

A medical withdrawal, if approved, will be noted on the student transcript. Medical withdrawal has no effect on the student's refund eligibility (See BCC Refund regulations pg. 15.)

A medical withdrawal for a prior semester must be completed by the end of the semester in which the student returns to the College.

Fresh Start

Any student absent from Broome Community College for two or more consecutive years may return and obtain a "fresh start," if their G.P.A. was below 2.0.

Under this procedure, a student will receive credit and retain on his/her transcript the grades for all courses previously passed with a grade of "C" or above, but these grades will not be calculated in the student's cumulative grade-point average (GPA). A student will receive no credit for courses in which he/she received a "C-" or below prior to the absence. All courses and grades will remain on a student's transcript.

Following the granting of a "fresh start," a minimum of twelve (12) credits must be completed before the student will be eligible for graduation.

If the student has been academically dismissed prior to return under the "Fresh Start" policy, he or she will be considered on probation upon return and must achieve a 2.0 GPA to return to good standing. Failure to do so will result in academic dismissal from the College.

This policy may be applied only one time per student. When a "fresh start" is granted, the following notation will be made on the student's transcript: "Student Granted Fresh Start".

A "Fresh Start," once granted, may not be rescinded at any time.

To initiate a fresh start, students may obtain a request for such action from the Registrar's office.

Changing Curriculum

Any student wishing to change curriculum must request a "Change of Curriculum" form from the Registrar's Office. It must have the approval of the new division dean/designee or department chairperson and the signature of the current division dean/designee or department chairperson.

The Change of Curriculum Policy is administered under the following criteria:

1. All previous courses and grades will remain on the permanent record.
2. The academic standing of the student at the time of the Change of Curriculum will be maintained. For example, a student on probation at the time he or she applied for the change will remain on probation. Students who have been dismissed must file a petition with the dean of the division which sponsors the new curriculum.
3. The student will be bound by the graduation requirements of the current catalog at the time of the curriculum change.

Semester Credit Overload

During the Fall and Spring semesters, no student may enroll (register) for more than 20.5 credits without approval from their Divisional Dean.

During the Summer semester, no student may register for more than 6.0 credits in any one summer term or take more than 12.0 credits for all summer terms without permission from their Divisional Dean.

Length of Curriculum

Most associate degree programs are designed to be completed in two years. The college year is divided into two semesters of 15 weeks each plus an evaluation week. Some students may choose or be required to take more than four semesters to earn their degrees. Radiologic Technology students, for example, have special clinical laboratory experiences in the summer of their freshman year.

Procedure for Student Name Change

If a student wishes to change his or her name at Broome Community College, the following policy and procedure must be used by the requestor:

Name change form must be filled out and turned into the Registrar's Office. Name change will be done with the proper documentation. Proper documentation may include any one of the following items:

1. A copy of name change on Social Security card or approved SS form.
2. A State Driver's License (picture) showing the name change.
3. Legal document changing the name.
4. Marriage license, wedding announcement from newspaper, or divorce decree.
5. Other documentation may be used at the discretion of the Registrar.

A copy of the above documentation should be made by the Registrar's office and placed in the student's folder. Name change goes to the Computer Center for processing.

Credit Equivalent

Some courses at Broome Community College carry "credit equivalents." This means that they do not give a student credit toward a degree at the College, but they are equivalent to the appropriate number of credits for calculating academic loading and tuition. This credit load is used, to cite some examples, for determining a student's status as full-time or part-time, for financial aid, for billing, and for academic standing. Courses carrying these credit equivalents fall in the 090 numbering series. Examples are: ENG 090 Basic Language Skills; MAT 090 Foundations of College Mathematics I; RDG 090 Reading Fundamentals; RDG 092 College Preparatory Reading. (See Developmental Courses on page 26.)

Classroom Practices

Attendance Regulations

General Policy

Colleges throughout the nation have found that students who regularly attend classes have a better success record than students who do not regularly attend classes. With the intent of encouraging student success, BCC strongly urges students to regularly attend their classes. In fact, the College's policy is that a student is expected to come to all class sessions prepared to participate in an appropriate manner. Absence from class is considered a serious matter and never excuses a student from classwork. A student must complete all assignments, examinations, and other requirements of any course, to receive credit.

The College understands, however, that students sometimes, due to uncontrollable circumstances, are absent from classes. In these cases, the students need to meet with their instructors to discuss missed work.

Department Exceptions

Within the spirit and framework of College policy, each department may develop its own guidelines to meet its needs. Such guidelines are subject to the approval of the Vice-President for Academic Affairs. NOTE: Some developmental courses have strict attendance requirements, whereby students may be deregistered from the class for poor attendance. This deregistration may result in a loss of financial aid. The consequences of this may necessitate that the student return financial aid monies to the College. Consult course outline and/or instructor for further details.

Deregistration

The College reserves the right to administratively deregister a student for a course(s) based on lack of attendance as reported by the instructor of the course on the Official Section Attendance Sheet. Students who have never attended the section or have not attended after the census date (first day of the fourth week of classes for full-term courses) will be deregistered from the course by the Registrar's Office and notified of this action, which may result in a loss of financial aid.

Students who are administratively dropped for non-attendance during the semester continue to have a tuition and fee obligation.

Absence due to Religious Beliefs

Section 224-a of the State Education Law reads:

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that he/she is unable, because of his/her religious beliefs, to attend classes or to participate in any examination, study or work requirements on a particular day or days.
2. Any student in an institution of higher education who is unable, because of his/her religious beliefs, to attend classes on a particular day or days, may be excused from any examination or any study or work requirements.
3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school, because of his/her religious beliefs, an equivalent opportunity to make up any examination, study or work requirements which he/she may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.
4. If classes, examination, study or work requirements are held on Friday after 4 p.m. or on Saturday, similar or makeup classes, examinations, study or work requirements shall be made available on other days, where it is possible and practical to do so. No special fees shall be charged to the student for these classes, examinations, study or work requirements held on other days.
5. In effectuating the provisions of the section, it shall be the duty of the faculty and of the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of his/her availing himself/herself of the provisions of this section.
6. Any student, who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section, shall be entitled to maintain an action or proceeding in the supreme court of the county in which such institution of higher education is located for the enforcement of his rights under this section.

6-a. A copy of this section shall be published by each institution of higher education in the catalog of such institution containing the listing of available courses.

7. As used in this section, the term "institution of higher education" shall mean schools under the control of the Board of Trustees of the State University of New York or of the Board of Higher Education of the City of New York or any community college.

Student Cheating

An instructor has the prerogative of failing a student who has cheated on an exam, quiz, paper, project, report, etc. for that exercise only. Students who cheat a second time risk failure of the entire course and additional disciplinary action, including the possibility of dismissal from college.

Classroom Decorum

Students are responsible for completing all course requirements as specified in the course outline. They are also obliged to be on time to class and to treat their instructor and fellow students respectfully.

Individuals who are disruptive and whose behavior adversely affects the learning of fellow students, may be removed from class.

Supplemental and Alternative Learning Opportunities

Learning Assistance Center

Reading and Study Skills Lab

Professional reading teachers are available in the Reading and Study Skills Lab to assist all students in improving their reading or in mastering the art of studying efficiently and effectively. Students may choose to work with a study skills specialist or to work independently on multi-media programs on such topics as efficient time management, effective notetaking techniques, reading and remembering textbook material, or improving performance on exams. Computer programs on vocabulary improvement and speed reading are also available. Instruction is arranged by appointment according to the student's schedule.

Math Lab

The Mathematics Lab is available to all BCC students looking for a location conducive to working on math homework, preparing for math quizzes or tests and in need of tutorial assistance. Assistance for all courses ranging from Arithmetic through Calculus is provided by an experienced staff of professional tutors along with members of the Mathematics Department faculty. Tutorial computer software is also available. Students may stop in for help without an appointment and can use the lab on a daily basis if desired. Appointments can be made on an individual basis for students experiencing problems that may require an extended amount of time to address. The Math Lab is located in the Library and is open daily, Monday through Friday, and four evenings per week.

Writing Center

The Writing Center's highly qualified staff, which includes professional tutors as well as peer tutors, stands ready to assist any student writing for any course. Some writers come to the Center for suggestions on how to begin writing projects, while others seek feedback on first drafts or revisions. Still others consult tutors about questions of grammatical correctness when essays are ready to be edited. Rather than tell writers what they "should" or "shouldn't" do in their writing, the tutors act as consultants, providing the guidance and support writers need in order to make their own careful choices about what to do next in their writing. All students, including those who are already confident, able writers, can benefit from discussing their writing with tutors.

For the convenience of the campus community, the Center has both day and evening hours. While tutors do meet with students on a walk-in basis when possible, students are encouraged to schedule appointments well in advance of assignment due dates to ensure that they will be served in a timely fashion. Schedule appointments in person or by telephone: 778-5333, 778-5363, or 778-5038.

In addition to providing individual and group tutorials, the Center offers a variety of activities to support and nurture students' interest in writing. Among these are workshops that address topics such as research-paper writing, overcoming writer's block, and editing the revised essay. Other examples include sponsorship of poetry and fiction readings and an annual essay contest.

The Center also maintains a collection of books about writing, and generates instructional booklets, such as guides for writing summaries and book reviews.

Peer Tutoring

The Faculty-Student Association and the Student Support Services Program fund a peer tutoring program, which offers one-to-one or small group instruction to any student experiencing difficulty with a course. Tutoring takes place in the Learning Assistance Center, and tutors are trained and supervised by the Program Coordinator.

The Center is open from 8:30 a.m. to 8 p.m., Monday through Thursday, and from 8:30 a.m. until 4 p.m on Friday. Detailed brochures describing the various programs are available at the reception desk at the Center or you may call 778-5038 for information.

Supplemental Instruction

One of the best ways to learn course concepts is to study with a group of other students. The Supplemental Instruction Program provides such study sessions for challenging courses. In the sessions, the group leader helps students to learn course concepts and, at the same time, to increase their skills in reading, studying, and critical thinking. For a list of Supplemental Instruction study groups, contact the Learning Assistance Center.

Learning Disabilities Program

The Learning Disabilities Program offers specialized services to students with identified learning disabilities, and to students who suspect they may have a learning disability.

Students who provide the college with documentation of a learning disability are eligible for a variety of services based on individual needs. Eligible students work with the Learning Disabilities Specialist to determine appropriate academic accommodations, receive instruction in specific academic skills, identify learning and study strategies, review academic advisement/planning, and develop self-advocacy skills. Eligible students may arrange for testing accommodations, readers, notetakers, and tutors through the Student Support Services Program.

Students who suspect they have a learning disability may meet with the Learning Disabilities Specialist to discuss individual situations. Based upon the interview, students who are in need of testing may receive a diagnostic assessment on campus. If a learning disability is discovered through testing, the student is then eligible for services as a student with a learning disability.

The Learning Disabilities Program also provides consultative services to faculty/staff, tutors and community organizations involved in the education of students with learning disabilities.

Developmental Courses

Various courses are offered through various departments for those desiring skill improvement or review. Some of these carry credit; others do not. The non-credit courses listed below prepare students for credit level work in the basic skills areas of mathematics, writing and reading. These non-credit courses are equivalent in time to credit bearing classes and are applicable toward athletic eligibility.

Developmental courses graded on a letter basis (A, A–, B+, etc.) will not be calculated in the student's semester grade point average and they may not be used for the determination of Academic Honors such as Dean's or President's List. (See page 23.)

	Courses	Credit or Equivalent	Catalog Page
CHM 090	Preparatory Chemistry	0 or 4	122
ENG 090	Basic Language Skills	0 or 4	135
MAT 090	Foundations for College Mathematics I	0 or 4	143
MAT 092	Foundations for College Mathematics II	0 or 4	143
MAT 094	Applications of Algebra with Trigonometry I	0 or 4	143
MAT 095	Metric Conversations and Dosages	0 or 1	143
MAT 096	Elementary Algebra and Trigonometry	0 or 5	143
MAT 097	Intravenous Medications and Pediatric Dosages	0 or 1	143
MAT 098	Applications of Algebra with Trigonometry II	0 or 4	143
PHY 090	Preparatory Physics I	0 or 4	153
RDG 090	Reading Fundamentals	0 or 3	156
RDG 092	College Prep Reading	0 or 3	156
RDG 094	College Vocabulary Skills	0 or 2	157

NOTE: ENG 090, MAT 090, 092, RDG 090, 092 have strict attendance requirements, whereby students may be deregistered from the class for poor attendance. This deregistration may result in a loss of financial aid. Consult course outline and/or instructor for further details.

Other developmental courses may be credit bearing. Students should pay close attention to catalog information pertaining to these courses and should consult their department chairpersons or Learning Assistance personnel about the acceptability of credit in a particular degree program.

	Courses	Credit or Equivalent	Catalog Page
LRS 101	Study Management	0.5	142
LRS 102	Memory and Exams	0.5	143
LRS 103	Textbook Mastery	0.5	143
LRS 104	Listening and Notetaking	0.5	143
LRS 105	Learning Skills	2	143
LRS 106	College Success	3	143
LRS 120	The Art of Thinking	1	143
LRS 130	Intro to Microcomputers and Word Processing	2	143
LRS 150	Advanced Learning Skills	3	143
SAC	Student Affairs Courses	2-3	157

College Level Examination Program (CLEP)

The College will recognize successful achievement at or above the 50th percentile on **CLEP subject exams** in accordance with SUNY and American Council of Education guidelines. Approval of credit for degree requirements or electives is determined by the appropriate department. Credit approval will be handled as transfer credit. Under certain circumstances, a department may accept general examination scores.

BCC Credit by Examination (CBE)

The College in many instances provides for full or part-time BCC matriculated students credit by examination for knowledge gained outside the traditional classroom situation. A letter grade will be posted on the student's transcript upon completion of the exam. Guidelines for this procedure are available from the College's chairpersons and deans. If a student receives an "F" grade after normal completion of a course, no credit by examination may be given in that subject.

Portfolio Assessment

(Special Individual Assessment)

The College will evaluate for credit various types of learning acquired outside the usual classroom environment. Particular criteria for awarding credit may be applied by an academic department. Approval of credit is the responsibility of the appropriate department. Students must clearly identify what has been learned. Contact the divisional dean for additional information. (Fees, page 14.)

Special Assessment of Experiential Learning

The College will evaluate for credit various **types of learning** acquired through participation **in learning** experiences, or training provided by business, industry, unions, professional societies, governmental agencies or the military. Particular criteria for awarding credit may be applied by an academic department, and approval of credit is the responsibility of the department. Contact the divisional dean for additional information. (Fees, page 14.)

Credit for Non-Academic Experiential Learning

Credit may be given for relevant experiential learning acquired in various contexts. A number of methods exist for receiving this credit—details are available from the dean of the division in which one is pursuing a degree.

Students may also find it advantageous to request credit by examination for a course in fields in which they have extensive knowledge and/or experience. By passing an examination, one can receive course credit. However, before being permitted to take an examination, students must satisfy a faculty committee as to their qualifications. Credit by examination is given only to matriculated students, and a fee is charged. (See page 14.)

Independent Study

Many academic departments of the College offer "Independent Study" courses which are arranged between an individual faculty member and a motivated student. The student has the responsibility to make appropriate arrangements with a faculty mentor and to secure the permission of the department chairperson before registering for independent study.

A student may not take more than one Independent Study course per semester. Independent Study courses are not intended to replace regular courses which the student was unable to schedule or which he/she did not complete. Rather, these courses provide an opportunity for the serious student who desires to expand his or her academic background beyond the scope and the depth usually found in an introductory course. (See course description section for offerings.)

Honors Program

The Honors Program is designed for students whose academic ability and personal motivation are so high that existing college programs may not fully challenge them. It is open to qualified students from most departments of the College. Participants are challenged to expand their understanding of life and reality through specially designed honors courses in English, History and Social Sciences, as well as through courses in the major program, close contact with honors faculty, and involvement with other highly motivated students.

Benefits include an increased awareness of political, economic, and social issues, development of critical thinking skills, and preparation for creative leadership in the 21st century, as well as an Honors diploma, an important asset in the competition for placement at selective four-year institutions.

To apply, students who believe they meet the qualifications below may obtain an application through high school guidance departments or from Greta Wingate, Program Director, Honors Program, Broome Community College, Binghamton, New York 13902.

Honors Program Requirements – High School Seniors

1. GPA of at least 3.2 (80 average).
2. SAT combined score of 1,050 or above with no subscore below 450.
   OR
   ACT composite score of 24 or higher with Math and English subscores of at least 21.
3. Two letters of recommendation:
   One from a teacher.
   One from a non-scholastic source such as an employer, club advisor, coach, or volunteer supervisor.
4. Students from New York: Regents Diploma.

Honors Program Requirements – Non-Traditional or Transfer Students

Because BCC has a large number of persons enrolled who do not come directly from high school, we want to make it possible for them to participate in the Honors Program.

Eligible students include:

- Full-time students who have completed one semester at Broome with a 3.5 GPA.
- Part-time students enrolled in a minimum of a 6 hour load per semester having accumulated 12 hours of credits with a 3.5 GPA.
- Transfer students having either of the above.

ALTERNATIVE LEARNING continued

College-on-the-Weekend

College-on-the-Weekend is one way Broome Community College has responded to the needs of a growing number of non-traditional students. Many people wishing to continue their education just cannot find the time during the week. Even evening classes pose a problem for working parents raising families.

Now you can earn a degree, part-time, attending classes every third weekend — six weekends each semester. You can take one, two, or three classes per term and earn your Associate's Degree in as little as 2-1/2 years. Weekend students may start the program at the beginning of any semester.

Take one, two, or three courses and progress at your own pace. You can even combine College-on-the Weekend with weekday evening courses at BCC and move along more rapidly. Now you can return to college on your terms — with a schedule that fits your lifestyle.

Currently, BCC College-on-the-Weekend students may earn an Associate in Applied Science degree in Business with an emphasis in Management or Marketing, or an Associate of Applied Science Degree in Accounting.

Various courses will be scheduled each semester to ensure that all students will be able to take all necessary courses during the fall, spring, or summer terms. Students with business courses from other colleges should call about credit transfer. For more information call the Business Division (607) 778-5008.

Weekend Services

BCC student services available to College-on-the-Weekend students:

- Financial Aid
- Lab Proctors
- Learning Assistance Center
- Study Areas
- Library Services
- Lounge
- Computers
- Advisors

Senior Audits

Any citizen of New York State who is 60 years of age or more may "audit" courses at Broome Community College without charge, as long as there is space available. In this context, the word "audit" means these students take the course by attending classes and being exposed to all the work given in class and assigned in the text. They do not have to do the homework or take the examinations, however, and they receive no letter grade or college credit.

Asynchronous Learning (ASL)

Students wishing to earn a college degree or simply take courses, but who find it difficult to adjust their schedule or commute to campus, may wish to take courses in the Asynchronous Learning Mode (ASL). With access to an appropriate computer and the Internet, courses may be completed at the convenience of the student.

The college offers an A.S. degree programs (Engineering Science) and many courses, using the ASL mode of delivery. In an "on-line" college course, the instructor and students are connected to each other through a computer network. Using the Internet, students can receive instruction, submit assignments, ask questions of fellow students and instructors, discuss issues, and actively participate in classes, all from home, office, or anywhere access to the Internet is available. The college is a member of the SUNY Learning Network, an active consortium offering distance learning opportunities for professional and personal development. For more information, contact the Registrar's office (607) 778-5027, or the Engineering Science office (607) 778-5114.

Overseas Study Program

Semester Aboard Programs

BCC provides formal, structured programs lasting for a semester, or a year, in Australia, England, France, Spain, Italy, Korea, Ecuador, Greece, Ireland, Portugal, Sweden, Dominican Republic, India, Israel, Mexico, China, Germany, and Switzerland. Students study a full semester program (usually 15 to 18 credits) that is arranged prior to their departure at affiliated schools, institutions, colleges, or universities abroad.

The subject areas range from liberal arts courses to specialized programs, such as criminal justice, international business, and languages. Costs of these programs vary greatly, with emphasis on high quality programs at public institutions. The costs approximate those at U.S. public colleges. For 1998-99, the cost of a full semester in the popular program in England was about $5,150. This includes room and board, all tuition cost, and many extras.

Many BCC students will find their academic and personal lives enriched through a cultural experience difficult to match in a conventional two-year course of study in this country.

Admission to Programs

Admission to the College does not automatically ensure admission to BCC programs overseas; separate application must be made. Students will be evaluated on their academic ability, motivation, maturity, and potential adaptability to a foreign culture. In addition to BCC approval, interviews with personnel from affiliate consortium institutions may be required. All programs are available to students from any college or the general public. At least one-half of the participants last year were community residents who went on short-term programs. Prior knowledge of a foreign language is not necessary.

January and Summer Short Programs

During each academic year BCC conducts short-term programs in January and in the summer months. During recent intersessions, students were able to study Italian Culture and Art in Italy and Tropical Field Ecology in the Virgin Islands. Costs for these programs last year started at $1,300. A list of the January offerings is usually available by November.

The summer programs vary in length from two weeks to one month. Recent offerings have included Italian Culture and Language, and Field Ecology in Australia.

During the summer, there are special month-long programs at the University of Madrid for Spanish students and the University of Bourgogne for French students. The cost of these programs was $3,500 each for 1999 but some students are able to qualify for scholarships. A similar program is offered in England, Germany, and Italy. A full list of courses being offered during the summer is usually available in March.

International Students

(See page 10.)

Credits, Transcripts, and Tuition

For Study Abroad, Semester, Intersession and Summer Session

Students register at BCC and pay the appropriate tuition, which in some cases covers the instructional cost abroad. Students are monitored through consortium offices at the college they attend. Upon the successful completion of the formal program or after fulfillment of the contract, students will receive a BCC transcript reflecting the grades achieved or the course equivalents for the work done through the contract, greatly facilitating transfer of credits to other American institutions.

Full-time students registering for courses that are scheduled other than in the Fall or Spring semesters will be charged at the part-time tuition rate. Sessions other than fall and spring semesters will be called Summer Session and Intersession.

The usual refund policy is not in effect for students taking courses in the Intersession and summer. Refund policies in semester length programs are determined by the receiving foreign institutions.

Grades received for all courses taken from the beginning of the Fall Semester through the end of that semester will be considered first semester grades. Grades received for all courses taken from the end of the first semester through the end of the second semester (even if taken in January or abroad) will be recorded as second semester grades.

Summer Session is treated like a third semester. The regular college grading system is used for all programs. All credits earned are Broome Community College credits, which allows students to use their financial aid packages for semester length programs.

Students may earn up to 18 credits per semester, leading to an associate's degree. Credits for Intersession/short-term programs range from one to six, depending on the time spent abroad, and the instruction offered in the program.

An Overseas Study bulletin board is maintained in the first floor lobby of Titchener Hall.

For additional details about any of the above programs, students should contact the International Studies Program Office at Broome Community College in M222 or T211 (Phone 778-5087).

Baccalaureate Transfer

Broome Community College graduates have successfully transferred to a wide array of baccalaureate degree granting higher education institutions. These include both private and public colleges and universities in and out of New York State. Some of these are listed below.

In-State Public Institutions

State University Centers at:

Albany
Binghamton
Buffalo
Stony Brook

SUNY Colleges

State University Colleges at:

Brockport
Buffalo
Cortland
Fashion Institute of Technology
Fredonia
Geneseo
New Paltz
Oneonta
Oswego
Plattsburgh
Potsdam
SUNY College of Agricultural & Life Sciences (Cornell)
SUNY College of Environmental Science & Forestry
SUNY College of Human Ecology (Cornell)
SUNY Health Center at Syracuse
SUNY Institute of Technology Utica/Rome

In-State Private Institutions

Clarkson University
College of St. Rose
Cornell University
Culinary Institute of America
Elmira College
Fairleigh Dickinson University
Ithaca College
LeMoyne College
Marist College
Mercy College
New School for Social Research
Niagara University
Rochester Institute of Technology
St. Bonaventure University
St. John Fisher University of Rochester
Syracuse University
University of Rochester

Out-of-State Institutions

American University (DC)
Anatolia College (Greece)
Arizona State University
Art Institute of Pittsburgh (PA)
Bloomsburg University (PA)
Coastal Carolina Universary (SC)
College of William & Mary (VA)
East Stroudsburgh University (PA)
Fayetteville State University (NC)
Florida Atlantic University
Franciscan University of Steubenville (OH)
Gallaudet University (DC)
Indiana University
Mansfield University (PA)
Marymount College (VA)
Marywood College (PA)
Massachusetts College of Pharmacy
National College of Chiropractic (IL)
North Carolina State University
Northeastern University (MA)
Oklahoma State University
Pennsylvania State University
Rutgers State University (NJ)
Sam Houston University (TX)
San Jose State University (CA)
University of Maryland
University of Nevada
University of North Carolina
University of Pittsburgh (PA)
University of Vermont
University of Texas
Virginia Tech
Wilkes University (PA)
York College of Pennsylvania

Special Transfer Programs

Guaranteed SUNY Transfer

Students who graduate from Broome Community College with Associate in Arts or Associate in Science degrees are guaranteed admission, at the third-year level, to a four-year college of the State University of New York. This guarantee has certain limitations and details are in the ACCESS Center.

Broome Community College has special articulation agreements with many two-year, upper division, and four-year colleges. The institutions listed here have transfer arrangements with BCC which allow BCC graduates to continue their education toward their baccalaureate degrees. For more information, contact the ACCESS Center.

Bentley College
Accounting, Computer Information Systems, Economics, Finance, Law, Management, Marketing, Quantitative Analysis

Binghamton University
School of Education and Human Development
Watson School of Engineering
Harpur College
School of Nursing

Clarkson University
School of Management

College of St. Rose
All AA, AS Degrees

Cornell University (College of Human Ecology)
Human Development and Family Studies
Interior Design

Fairleigh Dickinson University
AAS Degree in Civil, Electrical, Mechanical Engineering Technology

LeMoyne College
Any baccalaureate degree program with AA or AS in Liberal Arts and Related Careers, Business Administration, Engineering Science

Marist College
Parallel programs in Business (Marketing, Management) Accounting, Engineering Technology, (Civil, Electrical, Industrial and Mechanical)

Rochester Institute of Technology
AA, AS, AAS Degrees

St. John Fisher College
AA, AS degree programs, Liberal Arts and Related Careers, Business Administration, Engineering Science

SUNY College of Technology at Alfred
AAS in Electrical Engineering Technology, Mechanical Engineering Technology, Civil Engineering Technology
BS in Mechanical Electrical Engineering Technology

SUNY College at Brockport
Nursing, Business Administration, Criminal Justice, Liberal Arts and Related Careers and degrees will be accepted in Brockport's Recreation and Leisure program and Social Work program

SUNY College at Cortland
Elementary Education, Computer Science

SUNY College of Environmental Science and Forestry
Biological Sciences
Chemistry
Construction Option (Civil)
Landscape Architecture
Forest Engineering
Paper Science and Engineering
Wood Products

SUNY College at Fredonia
AA degree into Business Administration or Liberal Arts and Related Careers or Radio and Television
AS degree into Math, Physics, AAS in Early Childhood into Early Childhood Education, Music Education

SUNY College at Oneonta
AAS in Accounting, Marketing, Management, Data Processing, AAS in Early Childhood Education, Elementary Education concentration in Child and Family Studies and AS in Computer Science

SUNY College at Oswego
Business Administration
AAS in Vocational - Technical Education
Liberal Arts

SUNY College at Plattsburgh
Any Associate's Degree that leads to a baccalaureate program

SUNY College at Potsdam
Any Associate's Degree that leads to a baccalaureate program

SUNY College at Purchase
AA, AS degree programs in Liberal Arts and Related Careers

SUNY College of Technology (Utica)
AAS in Business, Electrical, Civil and Mechanical Engineering Technology, Industrial Technology, Nursing
AS in Computer Science, Engineering Science, Liberal Arts and Related Careers
AA in Liberal Arts and Related Careers
AS Human Services

Syracuse University
School of Management, Engineering Science

Trinity College (Vermont)
AA, AS, AAS degrees, concentrates on Liberal Arts and Related Careers, Sciences, Business Administration, Engineering Science

SUNY Health Science Center at Syracuse
Cytotechnology, Medical Technology, Physical Therapy

Utica College of Syracuse University
AA, AS graduates in following concentrations - Liberal Arts and Related Careers, Business Administration, Engineering Science

Waynesburg College
AS Degree graduates accepted, transfer credits determined on individual basis

West Virginia University
Dental Hygiene

Wilkes University
Accounting, Business Administration, Computer Science, Engineering Science, Liberal Arts and Related Careers, Nursing

Roger Williams College
AS degree graduates accepted. Transfer credit determined on individual basis

Cooperative Programs

Nursing, SUNY Brockport

Broome Community College has a Three-Plus-One Program with the Department of Nursing at SUNY-Brockport. After completion of the AAS degree in Nursing at Broome Community College, students take additional courses at Broome Community College during the third year. After successfully completing entrance exams, the student is admitted to SUNY Brockport for completion of the Bachelor of Science in Nursing degree.

Keystone Junior College

BCC students may also cross-register at Keystone Junior College in LaPlume, PA, for one course each semester. The courses for which they cross-register must be ones that are not available at Broome Community College, and they can take them without paying additional tuition. Additional information is available in the Registrar's Office (Student Services Building, Room 105).

Engineering Science

The Engineering Science Department has joint admissions agreements with Binghamton University's Watson School and with Buffalo University's School of Engineering. The department maintains specific articulation agreements with Cornell University, Clarkson University, Wilkes University and Tri-State University and a general articulation agreement with the Association of Engineering Colleges of New York State, all of which assure transfer as a junior to these institutions. Contact the Engineering Science Department for additional information.

Engineering, Binghamton University
Transfer Agreement

All Broome Community College students who have graduated or will graduate with an AA or AS degree with a grade point average of at least 3.0 will be admitted, upon application, as matriculated students at Binghamton University as space permits. Those students graduating with the above degrees, but with a grade point average between 2.6 and 3.0, are usually admitted. Others, including those with an AAS degree, should contact the Binghamton University Office of Admissions. Admitted students will be granted junior-year standing upon presentation of 56 or more transferable credits.

Environmental Science and Forestry
Pre-Environmental Science and Forestry

This program is designed for those students who ultimately desire a B.S. degree in Environmental Science and Forestry (ESF), which is an upper division/graduate center.

After the first two years of study at Broome Community College, transfers to ESF may apply to a variety of programs at Syracuse which may include the *biological sciences* (botany and forest pathology, entomology, zoology, wildlife biology, silvics, pest management); *chemistry* (natural and synthetic polymers, biochemistry and natural products, environmental); *forest engineering, paper science and engineering; wood products engineering; and forestry* (resource management, forest resource science, management science, environmental forestry, applied resource management). The program in *landscape architecture* leads to a B.S. degree in environmental studies and, after one additional year, a Bachelor of Landscape Architecture degree.

Persons planning to transfer should follow the program requirements in consultation with BCC's Pre-Environmental Science and Forestry campus advisor for selection of electives which may vary according to the curriculum at ESF.

Successful graduates of Broome Community College's Pre-Environmental Science and Forestry Program generally gain admission to the SUNY College of Environmental Science and Forestry with full junior class status.

Contact Anthony Lotempio (Science Building, Room 216).

One-Plus-One Programs

Broome Community College has One-Plus-One programs with other two-year colleges to enable a student to attend BCC for one year and then transfer to the other college for the second year for the Associate in Applied Science degree. This program permits students to begin studying at BCC for a degree in a field not offered at this college. By taking the BCC courses that one needs for the particular degree involved, residents of Broome County can enjoy the advantage of living at home during one year of their college attendance. Students taking these One-Plus-One Programs are Liberal Arts and Related Careers students at Broome Community College because most of the courses they take at BCC are Liberal Arts and Related Careers courses.

Check with the Liberal Arts and Related Careers Office for more information about these programs.

Part-Time Studies

General Information

Anyone in the community may enroll as a part-time student; BCC attracts a large number each year. Part-time enrollment accounts for almost 50% of the student body. These are mostly "non-traditional" students, men and women who also work full-time. The College has a strong commitment to serving the part-time student.

Part-time students are those who take fewer than 12 credits per semester, usually one or two courses. At BCC, part-time students can:

- enroll in credit courses, or non-credit mini courses.
- take day, evening, or weekend courses.
- attend classes in the fall, spring, or summer semester.
- earn a degree or not, as they see fit. Certificate programs are available.
- apply for financial aid if carrying 6 or more credits.
- receive academic advising and personal counseling.
- borrow books from the College library.
- receive Veterans' benefits.
- transfer credits to BCC earned at another college.
- participate in the College-on-the-Weekend Program.

Admissions

Although part-time students can take courses without being admitted, it is generally in the student's best interest to seek admission early in their studies. This will ensure more accurate and comprehensive advisement. Also, financial aid programs require formal admission to a degree program.

Placement Test

Part-time students are required to demonstrate basic skills competency for college level work. All matriculated students — those who are officially enrolled in a degree program — are required to take placement tests in reading, writing, and mathematics. The scores from the tests are used together with high school records to place students in courses where they will have the best chance to succeed. Contact the Learning Assistance Center (778-5038) or your advisor for testing information.

Advisement

Academic advisement and counseling is available for all Broome Community College part-time and evening students through the ACCESS Center located in the Student Services Bldg.

Student Services

Learning Resources Center (Library)

The Cecil C. Tyrrell Learning Resources Center was constructed in 1967-68 and named after the College's founding president. The building is an attractive, three-story structure which houses the Learning Resources Center (LRC), the Learning Assistance Center, as well as offices and classrooms.

The Learning Resources Center (LRC) provides the resources and services to meet the informational and instructional needs of BCC students, faculty, and the broader college community. Its primary function is to support and supplement the academic programs of the College and to provide a center for serious study, research, and learning.

The LRC integrates a variety of print and nonprint materials with the necessary services and equipment to enhance their use. The print collections consist of nearly 65,000 books, 500 periodical titles, and over 10,000 pamphlets. The nonprint collection includes 1500 video and 16mm titles and 1400 titles in other audiovisual formats. To enhance access to these materials, the LRC provides print and electronic indexes to periodicals and a computerized card catalog.

To ensure access to books and magazine articles not owned by the College, the LRC participates in various local, regional, state, and national reciprocal access and borrowing agreements. LRC staff can request specific books or articles from other libraries through interlibrary loan. In addition, the LRC maintains listings of other area libraries' periodical holdings where students can have direct access to their collections and provides logon access to the internet.

LRC facilities include individual study carrels and small group study rooms. Individual audiovisual viewing stations include videocassette viewing, sound slide use, audiocassette listening, and public access computer stations. Public access typewriters, microform reader/printers, drafting tables and photocopiers are also available.

A staff of professional, technical, and clerical specialists offers a broad range of services including lending of materials, information services, assistance with research techniques, instruction in the use of materials and equipment, audiocassette duplication, and interlibrary loan.

Most materials may be borrowed for use outside the LRC, although restrictions are placed on reference and reserve works. The basic loan period for books is 14 days, and for videocassettes, seven days.

LRC cards can be obtained at the Circulation Desk by completing a BCC/LRC Registration Form and presenting identification with proof of current address, preferably a driver's license. Failure to return borrowed materials promptly upon notice can result in withholding of grades, transcripts, and other services as well as collection fees. The borrower is responsible for all materials charged out on his/her card.

The LRC is open for service during the following hours:

Fall and Spring Semesters

Monday-Thursday	7:30 a.m. to 10 p.m.
Friday	7:30 a.m. to 5 p.m.
Saturday	12 noon to 5 p.m.
Sunday	4 p.m. to 10 p.m.

Summer Session

Monday-Thursday	7:30 a.m. to 10 p.m.
Friday	7:30 a.m. to 5 p.m.

Holiday and Intersession

As posted.

The LRC is closed on all days that the College is officially closed.

Student Health Services

Student Health Services is located in the Science Building, Room 102, and is open 8:30 a.m. to 5:00 p.m., Monday through Friday. All records are confidential, and information will be released only with the written authorization of the student.

The professional staff includes a part-time physician and clinic nurse, and a full-time nurse practitioner.

Services:

- Limited treatment for illnesses and injuries
- Limited medical emergency care
- Blood pressure screening
- Pregnancy tests
- Hepatitis B Vaccine ($120 charge)
- Measles, Mumps and Rubella immunizations (MMR - $20 charge)
- TB screening
- Tetanus immunization
- Contraceptive information
- Healthy lifestyle information
- Tests for strep throat

Child Care

For many students, a major concern is finding a safe place for their children during class time. The Faculty-Student Association helps to meet that need by operating a licensed child care service known as The B.C. Center.

The purpose of the service is to provide quality care in an educational, instructive, and warm environment. The staff is genuinely interested in the emotional, intellectual and physical growth of each child.

Space is limited, and registrations are required. For additional information, call 778-KIDS (778-5437).

Student Support Services

Students with disabilities are entitled to appropriate accommodations based on their individual needs and disability documentation. The Student Support Services Program coordinates accommodations and supportive services for students with disabilities. Accommodations such as interpreters, notetakers, testing accommodations, class accessibility and scheduling, adaptive educational equipment, books on tape, and other appropriate accommodations for educational access are arranged with the student based on individual disability documentation.

Broome Community College is committed to meeting the accommodative and support needs of students with disabilities. It must be realized though, that arranging accommodations requires advance planning. The College urges any student who has need of educational accommodations to give the Student Support Services Program as much advance notice as possible in order to ensure provision of quality support services.

To avoid duplication of services, the College urges any student with a disability to attempt enrollment with appropriate federal and state agencies (i.e. VESID, the Commission for the Blind, Veterans' Education Assistance Agency). Student Support Services staff will assist any student in applying to state and federal agencies.

A booklet describing supportive services is available from the Student Support Services office. This booklet is also available in alternative format.

Support Services for Students with Disabilities

With an open door admissions policy, BCC attracts many students with varied needs. The Student Support Services Program, a U.S. Department of Education grant program, provides assistance to students who have experienced difficulty in achieving academic success. The program is aligned under the Academic Affairs Division, and works closely with the Learning Assistance Center.

The Student Support Services Program provides a variety of supportive services to students who qualify for the program. Students may qualify under educational, economic, first generation, or disability criteria. Program supportive services include academic advisement, tutorial assistance, accommodations for students with disabilities, a peer mentor program, transfer information, and other supportive services. The office is located in the Cecil C. Tyrrell Learning Resources Center, and is open from 8 a.m. to 5 p.m. Phone 607 778-5150, 607 778-5234 (TDD).

Deaf/Hard-of-Hearing Program

The Deaf/Hard-of-Hearing program offers support services to students with hearing loss. The Coordinator of Interpreting Services works closely with Student Support Services to provide students a wide range of accommodations to ensure total accessibility. Qualified interpreters are scheduled for classes, campus service, tutoring, and student activities. The Coordinator of Interpreting Services is available to assist students in accessing services needed to meet their academic goals.

Campus Store

The Campus Store has two areas of operation, the Textbook Department and the General Merchandise Department. They are located across from one another in the lobby area of the Student Center.

In the Textbook Department students may purchase the books required for their courses. It opens one week prior to the start of classes for advance sales. To avoid standing in long lines the first few days of classes, students are urged to take advantage of the early sales period. It is advisable to purchase all required textbooks early in the semester. Unsold textbooks are returned to publishers shortly after the semester begins. Notices urging students to purchase the remainder of their textbooks for the current semester are posted throughout the campus on bulletin boards two weeks prior to the start of book returns.

The General Merchandise Department offers such classroom supplies as notebooks, paper, pens, binders, art and drafting materials, recycled paper products as well as computer diskettes, supplies and a variety of software programs. In addition, backpacks, imprinted sportswear and gift items may be purchased. The general book area offers a line of study aids, reference titles, magazines and newspapers.

The Campus Store hours of operation are posted at each store entrance. Customers who have questions, special requests, problems or suggestions should feel free to contact the Campus Store Director.

The ACCESS Center (Advisement, Counseling, Career Exploration Services)

The ACCESS Center provides many services for students, whether they are enrolled full-time or part-time, day or evening. Specialized counseling is also available for the international, disabled, career undecided, and academically dismissed students. All students can meet with counselors in a confidential, helpful, and informal atmosphere, as they seek to develop their potential, form realistic goals, and understand themselves emotionally and intellectually.

The ACCESS Center, located on the second floor of the Student Services Building, is staffed by professional counselors. Students should become acquainted with the Center by stopping in at their convenience or calling 778-5210 for an appointment. Special brochures are available at the Center giving details about the services.

Academic Counseling and Assistance

Counselors assist students in channeling their academic efforts into the proper perspective by helping them link their studies to personal and career goals and through aiding students when they are having difficulty in the classroom.

Career and Life Planning

Counselors assist students in exploring and establishing specific career and life goals. The process counselors use is a proven step-by-step approach to helping people identify and pursue their most fulfilling options.

Transfer Counseling and Assistance

Broome Community College has an excellent reputation for preparing students for study at four-year colleges and universities. Counselors assist students who are interested in continuing their education after their study at Broome by helping them identify schools that match their educational needs, interests, and abilities, and gaining important information about the schools which they are considering.

Additionally, counselors help students wishing to transfer with understanding the transfer procedures and steps that are necessary for successful transfer. Counselors and the Admissions Office work together to present the annual *Transfer Information Day* on campus, where representatives of four-year colleges and universities answer student questions about their institutions and give them specific information to help with their final selection of an upper-division school.

Counseling for Disabled Students

Students with disabilities may receive counseling by a counselor specifically assigned to this student population. The counselor is located in Student Services which is completely accessible. The Center's TTY phone number is 607 778-5210.

Personal Counseling

Counselors provide assistance to students who are experiencing social, personal, and family concerns. They are available to help the student facing these issues in a safe and confidential setting. Without resolution of problems, student performance in their studies often suffers and in many cases lead to the student being dismissed from the college due to poor grades.

Human Development Courses

The Center offers credit-bearing courses which provide students with an opportunity to examine their values, attitudes, beliefs, and abilities. The courses also offer an opportunity to learn how these factors affect the quality of life and relationships with others. In addition, the students examine the challenges and problems of society in relation to their development.

Special Workshops and Seminars

The Center offers a variety of workshops and seminars throughout the college year. Those that have been offered cover such topics as relaxation techniques, career exploration, cognitive style mapping, returning to college, assertiveness training, and help for eating disorders and substance abuse.

Testing

In conjunction with career and life planning, personal counseling, and academic counseling, the ACCESS Center offers students the opportunity to engage in a testing program. When appropriate, it can be arranged for a student to take a variety of tests including personality and interest inventories. Cognitive style mapping is also available to help students better understand their individual learning preferences. Tests can help students develop self awareness and improve their decision-making ability. The ACCESS Center also administers the ACT test and other professional career tests and licensing examinations.

International Student Advisor

The ACCESS Center provides an advisor to assist students from other countries in all areas of student life while at the college. The advisor also assists the international students in finding housing since the college has no dormitories.

Placement Services

General Information

Getting a job, particularly that first entry-level position, requires an understanding of how to contact employers and what job hunting techniques provide the best employment success. BCC's Placement Services not only helps students locate positions, but offers assistance in resume writing, networking, interviewing techniques, and all other job search related issues.

Additional services include access to the state and national job market via Internet, publications specifically related to employment techniques, and use of word processors and laser printers for resume and cover letter composition.

During the spring semester of each year, representatives of business, industry, and other organizations visit the campus to interview potential graduates for employment purposes. Augmenting the one-on-one recruiting interview is the opportunity to make contact with many employers during the Technical Job Fair in February, the Health Sciences Job Fair in March, and the Business & Liberal Arts Job Fair in April. Students wishing information regarding these recruitment programs or any other placement services should call (607) 778-5205, stop by the office, or visit placement's web site at www.sunybroome.edu/~placement.

(see placement statistics on page 35)

Placement Statistics: 1998 Graduates

93% Found Jobs or Transferred

- 93% of the 1998 graduates either found employment or transferred to four-year colleges, thus enabling BCC to fulfill its two major missions of preparing graduates for immediate employment or transfer to four-year colleges.
- 51% of the graduates went to work.
- 42% transferred to two-and four-year colleges or other technical programs.
- 6% were unemployed at the time of the survey.
- 1% were unavailable for work.
- Starting salaries of those who went to work averaged $22,133 a year and ranged from $11,128 up to $40,040. About 35% reported salary information.
- 946 graduates were in the Class of 1998 at Broome Community College, and 81% of them responded to the survey. All statistics here are based on that 81% response.

Where They Went To Work:

- 78% of those who went to work found jobs in Broome County, with an additional 13% working elsewhere in the Southern Tier. In addition, 5% got jobs elsewhere in New York State, and another 4% went outside of the state.

Where They Transferred To

- 73% of those who are continuing their higher education transferred to colleges in the State University of New York (SUNY) system.
- 13% to private colleges in New York State.
- 14% out-of-state colleges and universities.

Leading Employers (In Order)

1. Hospitals, nursing homes, clinics, rehabilitation centers, and related
2. Large industry
3. Government agencies including federal, state, county, municipal, and military
4. Day care, education, and non-profit organizations
5. Dentists, dental surgeons, and related dental
6. Physicians, surgeons, and related medical
7. Small to medium industry
8. Business firms and computer services
9. Restaurant and fast food establishments
10. Banks, investment firms, credit unions, and financial institutions

Colleges to Which Most Transferred (In Order)

1. Binghamton University
2. SUC at Cortland
3. SUC at Oneonta
4. SUC at Oswego
5. Rochester Institute of Technology
6. SUNY Buffalo
7. SUNY Institute of Technology at Utica/Rome
8. SUC at Geneseo
9. SUC at New Paltz
10. SUC at Plattsburgh

Placement by Academic Division

The Academic Areas

- *Business & Office Technologies:* 228 graduates, 60% employed, 3% unavailable for work, 31% transferred, 6% unemployed. Salary: $17,982 average. $11,128 to $26,400 range.
- *Engineering, Technology & Computer Studies:* 106 graduates, 44% employed, 1% unavailable for work, 48% transferred, 7% unemployed. Salary: $26,977 average. $21,819 to $40,000 range.
- *Health Sciences:* 192 graduates, 87% employed, 0% unavailable for work, 8% transferred, 5% unemployed. Salary: $23,245 average. $14,768 to $40,040 range.
- *Liberal Arts & Related Careers:* 420 graduates, 29% employed, 1% unavailable for work, 65% transferred, 5% unemployed. Salary: $18,624 average. $14,040 to $24,440 range.

Placement by Curriculum

The following is a summary of each curriculum of BCC's six academic areas in which there were graduates last year. Percentages are based on number of graduates responding, not total number.

Business and Office Technologies

- *Accounting, Banking, & Financial Services:* 52 graduates, 66% employed, 2% unavailable for work, 25% transferred, 7% unemployed. Salary: $19,107 average. $15,000 to $25,000 range.
- *Business Administration:* 36 graduates, 39% employed, 4% unavailable for work, 52% transferred, 4% unemployed. Salary: NA
- *Business Technology – Administrative Assistant:* 13 graduates, 64% employed, 0% unavailable for work, 9% transferred, 27% unemployed. Salary: $15,253 average. $13,520 to $16,660 range.
- *Business Technology – Executive Secretary:* 6 graduates, 40% employed, 0% unavailable for work, 40% transferred, 20% unemployed. Salary: NA
- *Business Technology – Records Information Management:* 1 graduate, 100% employed, 0% unavailable for work, 0% transferred, 0% unemployed. Salary: NA
- *Business Technology – Word Processing:* 1 graduate, 100% employed, 0% unavailable for work, 0% transferred, 0% unemployed. Salary: NA
- *Entrepreneurship:* 7 graduates, 71% employed, 0% unavailable for work, 14% transferred, 14% unemployed. Salary: NA
- *Hotel/Restaurant Management:* 10 graduates, 57% employed, 0% unavailable for work, 43% transferred, 0% unemployed. Salary: NA
- *Management:* 12 graduates, 55% employed, 0% unavailable for work, 36% transferred, 9% unemployed. Salary: $17,109 average. $13,416 to $25,000 range.
- *Marketing:* 19 graduates, 47% employed, 0% unavailable for work, 47% transferred, 6% unemployed. Salary: $19,307 average. $15,600 to $26,000 range.
- *Marketing Management:* 35 graduates, 80% employed, 0% unavailable for work, 20% transferred, 0% unemployed. Salary: NA
- *Paralegal:* 26 graduates, 45% employed, 14% unavailable for work, 36% transferred, 5% unemployed. Salary: NA
- *Travel and Tourism:* 10 graduates, 67% employed, 11% unavailable for work, 22% transferred, 0% unemployed. Salary: NA

Engineering, Technology, & Computer Studies

- *Chemical Engineering Technology:* 6 graduates, 60% employed, 0% unavailable for work, 40% transferred, 0% unemployed. Salary: NA
- *Civil Engineering Technology:* 16 graduates, 54% employed, 8% unavailable for work, 38% transferred, 0% unemployed. Salary: $25,211 average. $24,000 to $31,200 range.
- *Computer Information Systems:* 11 graduates, 55% employed, 0% unavailable for work, 9% transferred, 36% unemployed. Salary: $32,667 average. $28,000 to $40,000 range.
- *Computer Science:* 10 graduates, 83% employed, 0% unavailable for work, 17% transferred, 0% unemployed. Salary: NA
- *Computer Technology:* 3 graduates, 67% employed, 0% unavailable for work, 0% transferred, 33% unemployed. Salary: NA
- *Electrical Engineering Technology:* 10 graduates, 33% employed, 0% unavailable for work, 56% transferred, 11% unemployed. Salary: NA
- *Engineering Science:* 20 graduates, 6% employed, 0% unavailable for work, 94% transferred, 0% unemployed. Salary: NA
- *Industrial Technology:* 23 graduates, 75% employed, 0% unavailable for work, 25% transferred, 0% unemployed. Salary: NA
- *Mechanical Engineering Technology:* 7 graduates, 29% employed, 0% unavailable for work, 71% transferred, 0% unemployed. Salary: NA

Continued on page 36

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Health Sciences

- *Dental Hygiene:* 37 graduates, 85% employed, 0% unavailable for work, 3% transferred, 12% unemployed. Salary: $30,697 average. $20,800 to $40,040 range.
- *Emergency Medical Technician:* 7 graduates, 86% employed, 0% unavailable for work, 14% transferred, 0% unemployed. Salary: NA
- *Health Information Technology:* 13 graduates, 92% employed, 0% unavailable for work, 0% transferred, 8% unemployed. Salary: $17,870 average. $16,000 to $20,000 range.
- *Medical Assistant:* 20 graduates, 85% employed, 0% unavailable for work, 10% transferred, 5% unemployed. Salary: $16,238 average. $14,768 to $17,680 range.
- *Medical Laboratory Technology:* 9 graduates, 100% employed, 0% unavailable for work, 0% transferred, 0% unemployed. Salary: NA
- *Nursing:* 59 graduates, 87% employed, 2% unavailable for work, 11% transferred, 0% unemployed. Salary: $26,276 average. $23,795 to $27,202 range.
- *Physical Therapist Assistant:* 20 graduates, 77% employed, 0% unavailable for work, 6% transferred, 17% unemployed. Salary: $23,828 average. $20,800 to $29,786 range.
- *Radiologic Technology:* 27 graduates, 88% employed, 0% unavailable for work, 12% transferred, 0% unemployed. Salary: $24,559 average. $22,152 to $32,032 range.

Liberal Arts & Related Careers

- *Criminal Justice:* 48 graduates, 62% employed, 0% unavailable for work, 32% transferred, 6% unemployed. Salary: NA
- *Early Childhood:* 18 graduates, 47% employed, 6% unavailable for work, 41% transferred, 6% unemployed. Salary: NA
- *Fire Science:* 7 graduates, 100% employed, 0% unavailable for work, 0% transferred, 0% unemployed. Salary: NA
- *Individual Studies (AS, AAS), Individual Studies - Music, Design Arts, Theatre:* 34 graduates, 41% employed, 0% unavailable for work, 45% transferred, 14% unemployed. Salary: NA
- *Individual Studies - Elementary Education:* 33 graduates, 8% employed, 0% unavailable for work, 92% transferred, 0% unemployed. Salary: NA
- *Individual Studies - Mental Health:* 40 graduates, 29% employed, 0% unavailable for work, 55% transferred, 16% unemployed. Salary: NA
- *Liberal Arts (AA):* 200 graduates, 18% employed, 1% unavailable for work, 78% transferred, 2% unemployed. Salary: $19,539 average. $18,616 to $20,000 range.
- *Liberal Arts - Communications Media:* 31 graduates, 26% employed, 0% unavailable for work, 67% transferred, 7% unemployed. Salary: NA
- *Liberal Arts (AS):* 9 graduates, 14% employed, 0% unavailable for work, 72% transferred, 14% unemployed. Salary: NA

Student Life

The Student Activities Program at BCC believes that education is not restricted to scheduled classes. The program supplements and enhances the academic environment through co-curricular activities, as well as provides a chance to exercise social skills important to life long learning which are not covered in the classroom. The program offers a variety of social, cultural, intellectual, and athletic experiences.

Athletics

Intercollegiate Sports

The Athletic Department at Broome Community College serves as an integral part of the institution's total academic and student activities program. BCC is serious about athletics. The Department strives to provide an environment through which the athlete can achieve maximum development physically and mentally, through a well-rounded schedule of intercollegiate competition in athletics.

BCC is one of 550 member schools of the National Junior College Athletic Association (NJCAA). It is also one of 30 members of the subdivision of NJCAA Region III. BCC also participates in the Mid-State Conference as well as the Junior College Hockey League.

For Intercollegiate competition, Broome Community College fields men's teams in eight varsity sports — basketball, baseball, cross-country, golf, ice hockey, soccer, lacrosse and tennis. For women BCC sponsors five varsity teams — basketball, cross-country, softball, volleyball, and soccer.

BCC athletic teams have a rich tradition of success in two-year college competition. Dick Baldwin, who formerly coached Men's Basketball at BCC for 40 years, set the all-time record of 879 victories by a college coach. This achievement earned BCC national recognition in the Basketball Hall of Fame. The Golf team finished second in the Nationals in 1991. The Men's Basketball and Tennis teams won Regional Championships in 1994 and participated in the Division III National Championships. The baseball, soccer, ice hockey, and cross-country teams all have won regional and national recognition throughout the years.

The women's program has been equally successful in regional competition. The Volleyball team has participated in the Regionals as well as the National Tournament. Cross-Country and Tennis have sent representatives to both tournaments. The Softball and Basketball programs have made great strides over the years and have contributed to the rich athletic tradition at BCC.

Cheerleading is also available for both men and women.

In order to participate in Intercollegiate Athletics, students are required to meet NJCAA rules and academic eligibility requirements. All prospective athletes should contact the Athletic Office in the Student Center West (778-5003) to obtain further information on athletic eligibility requirements.

The Federal Register Report on Athletics is available in the Athletics office upon request.

The Athletic Program is enhanced by its facilities: two large, fully-equipped gymnasiums, a weight room, fitness center, a Dance/Combative room, athletic trainer's room, a baseball field, soccer field, and six tennis courts. A softball complex of four fields is also available to the College.

Intramurals

Physical activity is a vital part of an individual's life, regardless of physical capability. With this in mind, the Student and Community Affairs Division and the Physical Education Department coordinate an intramural program for all students enrolled at the College. Students are invited to participate in team sports such as Indoor Soccer, Basketball and Volleyball. For those interested in individual competition or "Play for Fun" sports such as Tennis, Golf, Badminton, and Bowling are also offered.

Clubs, Societies, and Organizations

Involvement in campus clubs provides a chance to exercise skills important to lifelong learning which may or may not be covered in the classroom. Depending on the purpose, club activities may range from overseas travel to local charity works.

Many organizations on campus are part of national organizations, either as student chapters of professional societies, service organizations, or honor societies. Club activity varies from year to year depending on student interest with new clubs developing around new pursuits. Current clubs include:

ASEE-(American Society for Engineering Education)
ASQ-(American Society for Quality)
BCC Destinations
BACCHUS
Black Student Union
Broome Early Childhood Association
Campus Bible Fellowship
Chemistry Club
Chess Club
CHI ALPHA
Civil Engineering Club
College Choir
Communication Curriculum Club
Computer Club
Criminal Justice Student Association
Dental Hygiene Association
Differently Abled Student Organization
Ecology Club
Fine Art and Design
Health Information Technology
I.E.E.E. (Institute of Electrical and Electronic Engineers)
I.S.O. (International Students Organization)
Lambda Society
Latino CHI ALPHA
Latter Day Saints Student Association
Lively Arts Club
Medical Assistants Club
Muslim Student Organization
Newman Association
Over 35 Club
PHI THETA KAPPA
Physical Therapy Club
Political Science Club
Quality Control
Radiologic Technology Club
Restaurant Association
Ski Club
Society of Mechanical Engineers
Storytellers Club
Student Calculator Network
Student Nurses Association
Women's Discussion Group
Writer's Club
Vietnamese Student Association

Student Government Association

The Student Government Association is the students' voice on campus. Membership consists of five Executive Board members and 10 Senators. The SGA works with the Student Activities Office on campus and community programs. SGA members provide input to campus life issues through their participation in campus boards and committees, including College Council, Parking Appeal, Extra-Curriculum, and the Faculty-Student Association. Students serving in the SGA have also gone on to serve with the New York State Student Assembly as Community College Representatives.

Performing and Fine Arts

Student Life at BCC means a variety of activities and performances going on weekly. Music, theater, comedy, dance, poetry readings, and contests, as well as lectures, seminars, and discussions are offered during the Common Hour. Annual events, including Student Activities Day, Halloween Costume Contest, Annual Student Art Exhibition, and Spring Arts Festival, bring the campus to life.

Theatre/BCC offers productions throughout the year of classic and new plays in a broad range of theatrical styles. Students may participate in productions whether or not they are enrolled in formal course work.

The BCC Music Association, the BCC Jazz Ensemble, the BCC Flute Ensemble, and the College Choir hold concerts throughout the year, both informally during the Common Hour and in concert settings with Winter and Spring Concerts.

Finally, as part of its commitment to serve the entire community, BCC has offered top name performers as well. Over the past several years, concerts by Chuck Mangione, Maynard Ferguson, Richie Havens, The Count Basie Orchestra, and the Artie Shaw Orchestra, as well as productions by the National Shakespeare Company, have been featured.

Student Behavior

The following prohibitions pertaining to student conduct are considered essential to the educational mission and community life of the college. They apply to all situations—on or off campus—with college sponsorship.

A. Use, possession, and/or distribution of weapons, firecrackers, explosives and chemicals.

B. Use or possession of illegal or controlled drugs and alcohol.

C. Gambling.

D. Abusive and disorderly behavior.

E. Deliberate destruction and/or abuse and misuse of college property or facilities.

F. Theft from an individual organization or agency, and/or department of the college.

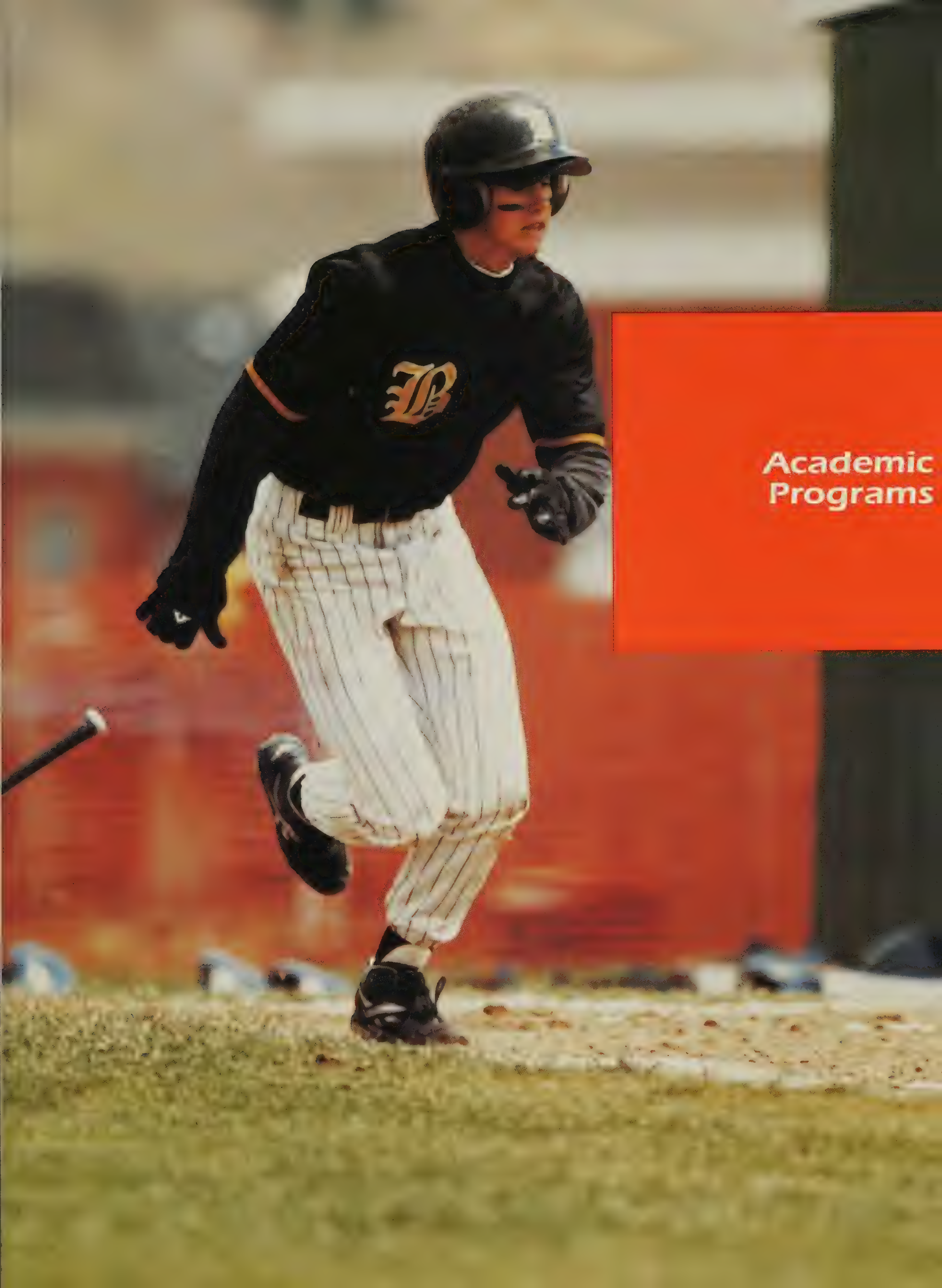
G. Assault and battery, threats of violence, and intimidation.

H. Fraud in any form, whether it be altering or changing college records, or cheating or plagiarism.

The above list of prohibitions is not a full listing of unacceptable behavior in a college community. It only lists the most intolerable acts. Other unacceptable behavior may also result in disciplinary action from the Vice President for Student and Community Affairs.

Academic dishonesty (such as cheating and plagiarism) or classroom behavior considered detrimental to the teaching-learning process will be addressed by the college's academic offices. A statement on student cheating appears on page 25.

Additional information about student behavior violation penalties appears in the Student Handbook distributed to all students at the start of the academic year.



Academic Programs

PART II - Table of Contents

Degree and Certificate Programs

The full displays of degree and certificate programs in this catalog are arranged in alphabetical order.

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*Indicates programs pending NYS approval.

Accounting

Associate in Applied Science

The Accounting Program at Broome Community College is a sequence of courses in Accounting, Business, and Liberal Arts that leads to the Associate in Applied Science Degree (A.A.S.). The program is designed primarily to prepare the student for employment in the Accounting field immediately after graduation, although many students do transfer to four year schools.

The program is designed to be completed in two years by the full-time student. Students who wish to pursue part-time studies may do so. Schedules can be personalized to fit any need including some courses taught in the BCC College-on-the-Weekend program.

FIRST YEAR

Fall Semester			HOURS/WEEK Class	Lab	CREDITS/SEMESTER
BUS	100	Accounting I	4	0	4
BUS	107	Freshman Experience	1	0	1
BUS	118	Business Law I	3	0	3
BUS	141	Marketing	3	0	3
ENG	110*	College Writing I	3	0	3
BUS	112	Quantitative Business Methods	3	0	3
			17	**0**	**17**

Spring Semester			Class	Lab	Credits
BUS	101	Accounting II	4	0	4
BUS	120w	Business Law II	3	0	3
CST	105	Computer Applications	2	2	3
BUS		Elective (Pick one elective from group A below)	3-4	0	3-4
MAT	117[2]	Elementary Finite Math/Algebra	3-4	0	3-4
			16-18	**2**	**16-18**

SECOND YEAR

Fall Semester			Class	Lab	Credits
BUS	200[3]	Intermediate Accounting I	4	0	4
BUS	205[3]	Cost Accounting I	4	0	4
— —		Math/Science Elective	3-4	0-3	3-4
ECO	110w	Micro Economics	3	0	3
SPK	110	Effective Speaking	3	0	3
			17-18	**0-3**	**17-18**

Spring Semester			Class	Lab	Credits
BUS	201[3]	Intermediate Accounting II	4	0	4
BUS	206[3]	Cost Accounting II or			
BUS	210[3]	Managerial Accounting	4	0	4
ENG		Advisor Approved English Course	3	0	3
BUS		Elective (pick one elective from group B below)	3-4	0-2	3-4
— —		Social Science Elective	3	0	3
			17-18	**0-2**	**17-18**

Total Credits: 67-71

Program supervised by:

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Curriculum Advisory Council:
General Business

Membership of the Business Department Advisory Council consists of representatives from area organizations. The Committee members are selected to serve on a rotating basis and are selected annually with some members remaining on the council for multiple terms.

See also:
Financial Services
pg. 67

NOTE: This program can also be taken on a part time or weekend basis. See page 31.

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*or ENG 111, based on placement test.

[2] Students planning to transfer are advised to take MAT 136 or higher.

Group A Electives: BUS 115, BUS 210, BUS 224, BUS 245, BUS 262, or BUS 269.

Group B Electives: BUS 206, BUS 210, BUS 224, BUS 181, BUS 297, BUS 275.

[3] Take these courses in the semester (spring or fall) indicated. They are not offered in all semesters.

Business Administration

Associate in Science Transfer Program

The Business Administration program at Broome Community College is a sequence of courses in Business, Liberal Arts, and Math/Science that leads to the Associate in Science degree. The program is designed primarily to prepare the student for transfer to four-year schools although some students do seek employment immediately after graduation. The BCC Department of Business has transfer agreements with many universities which ensure graduates of full Junior status at the upper division school. Students completing the program also have the option of continuing studies at Broome Community College to receive a Bachelor's degree through the New York State Regents College.

The program is designed to be completed in two years by the full-time student. Students who wish to pursue part-time studies may do so. Schedules can be personalized to fit any need including the BCC College-on-the-Weekend program of study.

			Hours/Week		Credits/Semester
FIRST YEAR			Class	Lab	
Fall Semester					
BUS	111	Financial Accounting	4	0	4
BUS	107	Freshman Experience	1	0	1
BUS	118	Business Law I	3	0	3
BUS	141	Marketing	3	0	3
ENG	110*	College Writing I	3	0	3
BUS	112[1]	Quantitative Business Methods	3	0	3
			17	**0**	**17**
Spring Semester					
BUS	210	Managerial Accounting	4	0	4
BUS	120w	Business Law II	3	0	3
BUS	115	Business Statistics	3	0	3
— —		[2]Free Elective	3	0	3
CST	105	Computer Applications	2	2	3
			15	**2**	**16**
SECOND YEAR					
Fall Semester					
SPK	110	Effective Speaking (or foreign language)	3	0	3
ECO	110w	Micro Economics	3	0	3
— —		[2]Liberal Arts/Math/Science elective (MAT 145 recommended)	3	0	3
— —		[2]Lab Science Elective	3	3	4
PED		Physical Education	2	0	1
— —		[2]Free Elective	3	0	3
			17	**3**	**17**
Spring Semester					
ECO	111	Macro Economics	3	0	3
MAT	146	Introduction to Calculus	3	0	3
SOS	116	International Business	3	3	3
— —		[2]Liberal Arts/Math/Science elective	3	0-3	3-4
ENG		Advisor Approved ENG Course	3	0	3
			15	**0-6**	**15-16**

Total Credits: 65-66

Program supervised by:

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Curriculum Advisory Council:
General Business

Membership of the Business Department Advisory Council consists of representatives from area organizations. The Committee members are selected to serve on a rotating basis and are selected annually with some members remaining on the council for multiple terms.

See also:
Management pg. 91

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*or ENG 111, based on placement test.

[1] Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090 and QBM or QBM or Introduction to Business.

[2] Be certain to consult advisor when selecting electives.

Business Administration Healthcare Services

Associate in Science Transfer Program

The Healthcare Services Administration program is an Associate in Science Business degree. It has been designed to prepare students for transfer to four-year institutions. After completion of the Healthcare Services Administration degree at BCC, and a subsequent bachelor's degree at the school of the student's choice, students will be qualified for employment in the growing healthcare industry.

The program may require more than two years to complete depending on a student's academic background. The Department will tailor a program assuring each student the opportunity to earn the A.S. Degree in Healthcare Services Administration and will aid students in securing successful transfer to four-year institutions.

FIRST YEAR

Fall Semester

			Hours/Week		Credits/Semester
			Class	Lab	
BUS	111	Financial Accounting	4	0	4
BUS	118	Business Law I	3	0	3
BUS	141	Marketing	3	0	3
BUS	112[1]	Quantitative Business Methods	3	0	3
ENG	110*	College Writing I	3	0	3
BUS	107	Freshman Experience	1	0	1
			17	**0**	**17**

Spring Semester

			Class	Lab	Credits
BUS	210	Managerial Accounting	4	0	3
BUS	120w	Business Law	3	0	3
MAT	117[2]	Elementary Finite Math	4	0	4
CST	105	Computer Applications	2	2	3
HCM	193	Intro. to Healthcare Systems	3	0	3
			17	**0**	**17**

SECOND YEAR

Fall Semester

			Class	Lab	Credits
ECO	110w	Microeconomics	3	0	3
BIO	131	Human Biology I	3	2	4
SPK	110	Effective Speaking	3	0	3
HCM	194	Healthcare Financing	3	0	3
BUS	115	Business Statistics	3	0	3
BUS	245	Management, A Behavioral Approach OR			
BUS	248	Human Resource Management	3	0	3
			18	**2**	**19**

Spring Semester

			Class	Lab	Credits
Math, Science, Liberal Arts Elective			3	1	3
BIO	132	Human Biology II	3	2	4
ENG		Advisor Approved ENG Course	3	0	3
HCM		Elective	3	3	3
ECO	111	Macroeconomics	3	3	3
PED		Physical Education	2	0	1
			17	**2**	**17**

Total Credits: 70

Program supervised by:

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* or ENG 111, based on placement test.

[1] Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090 and QBM or QBM or Introduction to Business.

[2] or higher number four-credit math course.

Program supervised by:

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Curriculum Advisory Council:
General Business

Membership of the Business Department Advisory Council consists of representatives from area organizations. The Committee members are selected to serve on a rotating basis and are selected annually with some members remaining on the council for multiple terms.

Business Administration International Business

Associate in Science Transfer Program

The Business Administration program with an emphasis in International Business is a sequence of courses in Business, Liberal Arts, and Math/Science that leads to the Associate in Science degree. The program is designed primarily to prepare the student for transfer to four-year schools although some students do seek employment immediately after graduation. The BCC Department of Business has transfer agreements with many universities which ensure graduates full Junior status at the upper division school. Students completing the International Business Emphasis can transfer to four-year colleges and receive a Bachelor's degree in International Business or other business areas.

The program is designed to be completed in two years by the full-time student. Students who wish to pursue part-time studies may do so. Schedules can be personalized to fit any need including the BCC College-on-the-Weekend program of study.

FIRST YEAR		HOURS/WEEK		CREDITS/SEMESTER
Fall Semester		Class	Lab	
BUS 111	Financial Accounting	4	0	4
BUS 107	Freshman Experience	1	0	1
BUS 118	Business Law I	3	0	3
BUS 141	Marketing	3	0	3
ENG 110*	College Writing I	3	0	3
BUS 112/110[1]	Quantitative Business Methods or Intro to Business	3	0	3
		17	**0**	**17**
Spring Semester				
BUS 210	Managerial Accounting	4	0	4
BUS 120w	Business Law II	3	0	3
BUS 115	Business Statistics	3	0	3
	[2]Foreign Language Elective	4	0	4
CST 105	Computer Applications	2	2	3
		16	**2**	**17**
SECOND YEAR				
Fall Semester				
ECO 110w	Microeconomics	3	0	3
— —	[2]Lab Science Elective	3	3	4
— —	[2]Foreign Language Elective	4	0	4
PED	Physical Education	2	0	1
BUS/SOS 116	International Business	3	0	3
		15	**3**	**15**
Spring Semester				
ECO 111	Macroeconomics	3	0	3
MAT 146	Intro to Calculus	3	0	3
— —	Free Elective	3-4	3	3-4
	[2]Foreign Language or an elective from below #	3-4	0	3-4
ENG	[2]Advisor Approved ENG Course	3	0	3
		15-17	**0-3**	**15-17**

# ANT 111, HIS 115, HIS 190, GEO 120, ART 102, ART 104, OR HIS 141

Total Credits: 64-66

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* or ENG 111, based on placement test.

[1] Depending on Mathematics entrance score and Math background, the student will take: MAT 090 and QBM or QBM or Introduction to Business.

[2] Be certain to consult advisor when selecting electives.

Business Information Management (Formerly Records Information Management)

Associate in Applied Science*[1]

Students who are interested in preparing for careers that require a solid foundation in business and technology would benefit from this program. The program has been designed to provide for flexibility in scheduling liberal arts, business information technology, and specialized courses. Students will be able to plan a program of study that includes the skills and knowledge currently required for employment and takes into account the students' interest and abilities in those areas. The focus of this degree is to educate students in tools and techniques necessary to acquire, process, and manage information as it relates to one of the following areas of specialization: records information management, desktop publishing, website development and management or office technologies.

Two additional options are available for students who wish to obtain skills and knowledge in a particular field without committing to a full-time degree program: 1) A 30-credit-state-approved certificate in each of the 4 areas of specialization – records information management, desktop publishing*, web site development and management or office technologies, and 2) A Certificate of Achievement earned by completing three to five required courses in each of those areas. Interested students should contact the Business Information Technology Chairperson for more information about these popular options.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be designed for those requiring preparatory courses or those deciding to pursue part-time study.

Core Degree Requirements

FIRST YEAR		Hours/Week		Credits/Semester
Fall Semester		Class	Lab	
ENG 110	College Writing I	3	0	3
— —	Social Science Elec.	3	0	3
3 courses from Certificate Program		9	0	9
		15	**0**	**15**
Spring Semester				
— —	Lab Science Elec.	2	2	3
ENG 111	College Writing II	3	0	3
— —	BIT/BUS Elective	3	0	3
2 courses from Certificate Program		6	0	6
		14	**2**	**15**
SECOND YEAR				
Fall Semester				
— —	LA Elective	3	0	3
— —	Social Science Elective	3	0	3
2 BIT/BUS Electives		6	0	6
2 courses from Certificate Program		6	0	6
		18	**0**	**18**
Spring Semester				
— —	MAT/SCI Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
3 Elective courses from approved list based on emphasis		9	0	9
		15	**0**	**15**

Desktop Publishing Emphasis

FIRST YEAR		Hrs/Wk		Cred/Sem
Fall Semester		Class	Lab	
ENG 110	College Writing I	3	0	3
— —	Social Science Elective	3	0	3
ART 105	2-Dimensional Design	3	0	3
BIT 173	Basics of Website Creation	3	0	3
BIT 240	Desktop Publishing Using PageMaker	3	0	3
		15	0	15
Spring Semester				
— —	Lab Science Elective	2	2	3
ENG 111	College Writing II	3	0	3
— —	BIT/BUS Elective	3	0	3
ART 125	Computer Graphics	3	0	3
BIT 185	Software Tools for Web and Print Publishing	3	0	3
		14	2	15

SECOND YEAR		Hrs/Wk		Cred/Sem
Fall Semester		Class	Lab	
— —	LA Elective	3	0	3
— —	Social Science Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
ART 202	Commercial Photography	3	0	3
BIT 245	Electronic Page Layout Using QuarkXPress	3	0	3
		18	0	18
Spring Semester				
— —	MAT/SCI Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
2 Electives from Approved List		6	0	6
		15	0	15

Total Credits: 63

Program supervised by:

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Curriculum Advisory Council: Business Information Technology

Membership of the Business Information Technology Advisory Council consists of representatives from area organizations. The Council members are selected to serve on a rotating basis and are selected annually with some members remaining on the Council for multiple terms.

See also: Office Administration pg. 100

***NOTE:** Program pending N.Y.S. approval

[1]Certificates are available in Desktop Publishing, Office Technologies, Records Information Management and Website Development and Management, for students who complete a predetermined selection of courses on this page. Please contact the coordinator, above, for more information.

W - Writing Emphasis Course

Depending on Mathematics entrance testing scores, the student will take MAT 090 and/or BUS 112.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

At least one of the social science electives must be from the following courses: ECO 110/111, HIS 1130, POS 201/204, SOC 111, SOS 111/120/290.

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Curriculum Advisory Council:
Business Information Technology

Membership of the Business Information Technology Advisory Council consists of representatives from area organizations. The Council members are selected to serve on a rotating basis and are selected annually with some members remaining on the Council for multiple terms.

Office Technologies Emphasis (one example)

FIRST YEAR		Hrs/Wk		Cred/Sem
Fall Semester		Class	Lab	
ENG 110	College Writing I	3	0	3
— —	Social Science Elective	3	0	3
BIT 100	Keyboarding	3	0	3
BIT 110	Business English	3	0	3
BIM 100	Introduction to Business Information Management	3	0	3
		15	0	15
Spring Semester				
— —	Lab Science Elective	2	2	3
ENG 111	College Writing II	3	0	3
— —	BIT/BUS Elective	3	0	3
BIT 130	Word Processing	3	0	3
BIT 140W	Business Communications	3	0	3
		14	2	15

SECOND YEAR		Hrs/Wk		Cred/Sem
Fall Semester		Class	Lab	
— —	LA Elective	3	0	3
— —	Social Science Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
BIT 200	Spreadsheets with Business Applications	3	0	3
BIM 250	Integrated Business Office Applications	3	0	3
		18	0	18
Spring Semester				
— —	MAT/SCI Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
BIM 275	Advanced Business Communications	3	0	3
BIT 280	Office Administration	3	0	3
BIT 297	Internship	3	0	3
		15	0	15

Total Credits: 63

Records Information Management Emphasis

FIRST YEAR		Hrs/Wk		Cred/Sem
Fall Semester		Class	Lab	
ENG 110	College Writing I	3	0	3
— —	Social Science Elective	3	0	3
BIT 100	Keyboarding	3	0	3
BIT 169	Mastering the Internet & the WWW	3	0	3
BIM 100	Introduction to Business Information Management	3	0	3
		15	0	15
Spring Semester				
— —	Lab Science Elective	2	2	3
ENG 111	College Writing II	3	0	3
— —	BIT/BUS Elective	3	0	3
BIT 130	Word Processing	3	0	3
BIM 110	Systems & Procedures in Business Records Mgmt.	3	0	3
		14	2	15

SECOND YEAR		Hrs/Wk		Cred/Sem
Fall Semester		Class	Lab	
— —	LA Elective	3	0	3
— —	Social Science Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
BIT 200	Spreadsheets with Business Applications	3	0	3
BIM 200	Business Records Management Technologies	3	0	3
		18	0	18
Spring Semester				
— —	MAT/SCI Elective	3	0	3
— —	BIT/BUS Elective	3	0	3
BIT 280	Office Administration	3	0	3
BIM 290	Special Topics in RIM	3	0	3
BIM 297	Internship	3	0	3
		15	0	15

Total Credits: 63

***NOTE:** Program Pending N.Y.S. Approval

[1] Certificates are available in Desktop Publishing, Office Technologies, Records Information Managment and Website Development and Management, for students who complete a predetermined selection of courses on this page. Please contact the coordinator, above, for more information.

W - Writing Emphasis Course

Depending on Mathematics entrance testing scores, the student will take MAT 090 and/or BUS 112.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

At least one of the social science electives must be from the following courses: ECO 110/111, HIS 1130, POS 201/204, SOC 111, SOS 111/120/290.

Website Development and Management Emphasis

FIRST YEAR

Fall Semester

		Hrs/Wk Class	Lab	Cred/Sem
ENG 110	College Writing I	3	0	3
——	Social Science Elective	3	0	3
BIT 173	Basics of Website Creation	3	0	3
2 Electives from Approved List		6	0	6
		15	**0**	**15**

Spring Semester

		Hrs/Wk Class	Lab	Cred/Sem
——	Lab Science Elective	2	2	3
ENG 111	College Writing II	3	0	3
BIT 182	Designing Effective Web Pages	3	0	3
BIT 185	Software Tools for Web and Print Publishing	3	0	3
BUS 190	Marketing for the WWW	3	0	3
		14	**2**	**15**

SECOND YEAR

Fall Semester

		Hrs/Wk Class	Lab	Cred/Sem
——	LA Elective	3	0	3
——	Social Science Elective	3	0	3
BIT 186	Interactive Websites	3	0	3
2 BIT/BUS Electives		6	0	6
1 Elective from Approved List		3	0	3
		18	**0**	**18**

Spring Semester

		Hrs/Wk Class	Lab	Cred/Sem
——	MAT/SCI Elective	3	0	3
1 BIT/BUS Elective		3	0	3
CST 120	Java	3	0	3
2 Electives from Approved List		6	0	3
		15	**0**	**15**

Total Credits: 63

Program supervised by:

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Curriculum Advisory Council:
Business Information Technology

Membership of the Business Information Technology Advisory Council consists of representatives from area organizations. The Council members are selected to serve on a rotating basis and are selected annually with some members remaining on the Council for multiple terms.

***NOTE:** Program Pending N.Y.S. Approval

[1] Certificates are available in Desktop Publishing, Office Technologies, Records Information Managment and Website Development and Management, for students who complete a predetermined selection of courses on this page. Please contact the coordinator, above, for more information.

W - Writing Emphasis Course

Depending on Mathematics entrance testing scores, the student will take MAT 090 and/or BUS 112.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

At least one of the social science electives must be from the following courses: ECO 110/111, HIS 1130, POS 201/204, SOC 111, SOS 111/120/290.

Program supervised by:

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Curriculum Advisory Council: General Business

Membership of the Business Department Advisory Council consists of representatives from area organizations. The Committee members are selected to serve on a rotating basis and are selected annually with some members remaining on the council for multiple terms.

Business Skills

Certificate Program

The Business Skills Certificate provides the opportunity for a student to complete basic study in business with a concentration in a career skills area. Students may complete the program in as little as nine months, depending on the exact sequence of courses chosen or take longer if they wish. Courses taken for the certificate may then be used towards an Associates degree in Business if the student desires.

All students take the core courses below, and then complete at least an additional 15-credit concentration in their area of interest. Some sample concentrations are listed below. The student may choose from these, or develop their own with the assistance of a business advisor.

Core Degree Requirements		**Credits**
BUS 100	Accounting I	4
BUS 112	Quantitative Business Methods	3
BUS 118	Business Law I	3
BUS 141	Marketing	3
BUS 109	Workplace Readiness	1
TOTAL CORE CREDITS		**14**

Concentration In Accounting

Courses		**Credits**
BUS 101	Accounting II	4
BUS 200	Intermediate Accounting I	4
BUS 205	Cost Accounting I	4
BUS 210	Managerial Accounting	4
CST 105	Understanding Computers	3

Concentration In Customer Service

Courses		**Credits**
BUS 129*	Consumer Behavior	3
OR		
BUS 269	Business Reports and Computer Communications	
BUS 152	Selling Fundamentals	3
BUS 214	Customer Service	3
Work Activity Co-Op		4
BUS 267	Retailing In a Service Economy	3

Concentration In Financial Services

Courses		**Credits**
BUS 131	Personal Finance	3
BUS 135	Investments	3
BUS 172	NYS Life, Accident, and Health Pre Licensing	2
BUS 183	Securities Training 6/63	3
BNK 184 or BUS 184	Securities Practicum	4

Concentration In Food Service Supervisor

Courses		**Credits**
BHM 110	Sanitation and Safety	2
BHM 125	Hospitality Law	3
BHM 201	Internship	3
BHM 216	Quantity Food Production	3
BHM 235	Hotel/Restaurant Cost Control	4
BUS 248	Human Resource Management	3

Concentration In Healthcare Services

Courses		**Credits**
HCM 193	Introduction to U.S. Healthcare	3
HCM 194	Healthcare Financing	3
HCM 195	Managed Health Delivery Systems	3
BUS 248	Human Resource Management	3
HCM	Healthcare Elective	3

Concentration In Travel/Tourism

Courses		**Credits**
BUS 152	Selling Fundamentals	3
TTM 102	Introduction to Travel/Tourism	3
TTM 117	Travel/Tourism Suppliers	3
TTM 260	Destination/Convention Marketing and Management	3
TTM or BUS Elective		3

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*Selection to be made based on advisement.

Chemical Dependency Counseling

Associate in Applied Science

An option in the Human Services degree program designed to prepare students as paraprofessionals in the field of alcohol and substance abuse treatment. The program is also designed to provide continuing education for individuals presently working in the field. The curriculum is liberal arts based with a concentration in alcohol and drug specialization courses. Coursework is enhanced with two supervised clinical internships.

Coursework is formulated to meet the educational component necessary to apply for New York State Credentialed Alcoholism and Substance Abuse Counselor (CASAC). Internships will partially fulfill requirements for supervised work experience for the credential.

Graduates are prepared to work in alcohol and drug treatment facilities, correctional facilities, employee assistance programs, or as prevention/education specialists in school settings. Additionally, graduates can transfer to baccalaureate degree programs in human services, counseling, and social work.

FIRST YEAR			**HOURS/WEEK**		**CREDITS/SEMESTER**
Fall Semester			Class	Lab	
ENG	110	College Writing I or ENG 111 College Writing II	3	0	3
PSY	110	General Psychology	3	0	3
BIO	131	Human Biology I	3	2	4
SOC	110/ 111	Intro. to Sociology or Social Problems	3	0	3
ASA	110	Intro. to Chemical Dependency	3	0	3
PED		Physical Education Elective	0	2	1
			15	**4**	**17**
Spring Semester					
SPK	110	Effective Speaking	3	0	3
PSY	234	Psychology of Addictions	3	0	3
PSY	217	Counseling and Interviewing	3	0	3
BIO	132	Human Biology II	3	2	4
ASA	210	Chemical Dependency Counseling I	3	0	3
			15	**2**	**16**
SECOND YEAR					
Fall Semester					
PSY	214	Abnormal Psychology	3	0	3
PSY	210	Human Development	3	0	3
ASA	220	Chemical Dependency Counseling II	3	0	3
ASA	230	Chemical Dependency: Family Issues	3	0	3
ASA	310[1]	Supervised Clinical Internship I	1	15	4
			13	**15**	**6**
Spring Semester					
PSY	227	Behavior Modification	3	0	3
MAT	124	Statistics	3	0	3
ASA	240	Special Topics in Chemical Dependency	3	0	3
ASA	320[1]	Supervised Clinical Internship II	1	15	4
ENG	220	Communicating About Ideas and Values	3	0	3
			13	**15**	**16**

GRADUATION REQUIREMENTS: 65 CREDITS

Program supervised by:

Margherita Rossi
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W - Students must take two Writing Emphasis ("W") courses after ENG 110.

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[1] **Criteria for Internships:**

Academic performance is not the only criteria for entrance into the internship components of the program. Professional and experiential considerations determine the appropriateness, performance expectations, and overall suitability of potential student interns. The Chairperson of the Psychology, Education, and Human Services Department and the ASA faculty may determine that a given student is not personally ready for internship in a given semester, even though that student has completed all the academic prerequisites for the course, and may not permit the student access to the internship until the problem in question has been adequately addressed.

Additionally, field supervisors at the provider agency may reject a candidate at the application interview for reasons they deem clinically appropriate and which they determine would make the student inappropriate for placement in that agency at that time. Field supervisors may also remove a student already accepted at any time during the internship if it is determined that the student is resistant to supervision or poses a potential threat/danger to clients in treatment.

Registration predicated on number of internships available each semester.

Program supervised by:

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Curriculum Advisory Council: Chemical Engineering Technology

DR. DONALD FUREY / Eastman Kodak Company
JAMES LAMPHERE / New York State Electric and Gas
DR. MARK POLIKS/ IBM Endicott
MRS. HAPPINESS SINGLER/ Hadco Corp.
DR. BRIAN E. STUTTS/ Corning Glass
DR. WILLIAM WITTOSCH / International Paper Company

Chemical Engineering Technology

Associate in Applied Science

The continued search for new materials, clean and high quality manufacturing processes, and the increased concern for the environment, all point to a continued need for chemical technicians in the future. The Chemical Engineering Technology Program is designed to educate technicians for employment in industries such as environmental analysis, pharmaceutical and chemical synthesis, plastics technology, and electronic materials.

The program is unique in New York State and is one of only nine such programs nationwide. The curriculum is accredited by the Technology Accreditation Commission of the Accreditation Board of Engineering and Technology (TAC-ABET). Course work and laboratory projects emphasize the following areas: Instrumental Analysis, Chemical Synthesis, Process Control, Environmental Testing, and Computer Applications.

Employers of recent graduates include IBM, NYSEG, Hadco, and Lockheed-Martin. For the previous three years, starting salaries have ranged from $21,000 to $26,000.

Each year, approximately one-half of the graduates transfer to four-year programs in Chemistry or Chemical Engineering.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all entrance requirements and who pursue full-time study. Schedules will be individually designed for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR

Fall Semester

			Hours/Week		Credits/Semester
			Class	Lab	
ENG	110	College Writing I	3	0	3
CHM	145	Chemistry	3	3	4
MAT	150[1]	College Tech. Math.	4	0	4
PHY	161[2]	Physics I	3	3	4
CST	106	Computers in Tech.	2	2	3
TEC	100	Intro. to Technology	1	0	0.5
			16	**8**	**18.5**

Spring Semester

			Class	Lab	Credits/Semester
ENG	150	Technical Writing	3	0	3
CHM	146	Chemistry	3	3	4
MAT	160[1]	Applied Calculus	4	0	4
PHY	162[2]	Physics II	3	3	4
			13	**6**	**15**

SECOND YEAR

Fall Semester

			Class	Lab	Credits/Semester
CHM	251	Chem. Eng. Tech. Seminar	1	0	0.5
CHM	261	Organic Chemistry	3	6	5
CHM	265	Analytical Chemistry	3	6	5
CHM	271	Chemical Processes	3	4	5
		Social Science Elective	3	0	3
			13	**16**	**18.5**

Spring Semester

			Class	Lab	Credits/Semester
CHM	262	Organic Chemistry	3	6	5
CHM	266	Instrumental Analysis	3	6	5
CHM	272	Chemical Processes	3	4	5
		Social Science Elective	3	0	3
			12	**16**	**18**

GRADUATION REQUIREMENTS: 70 CREDITS

Independent Study/Special Projects: From time to time students have the opportunity to work on special projects, under the supervision of a faculty member. Currently, students are analyzing water samples as part of a long range study of the Susquehanna River Basin.

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[1] or MAT 181, 182

[2] or PHY 181, 182

Civil Engineering Technology

Associate in Applied Science

Civil Engineering Technology is an exciting, diverse field with excellent employment opportunities locally, state-wide, and nationally. Graduates are involved in all phases of the construction industry, from planning and design of buildings, bridges, highways, commercial and industrial facilities, to management and inspection of the construction process. Both men and women find rewarding careers with consulting engineering companies, construction companies, and governmental agencies, such as the New York State Department of Transportation or Broome County's engineering department.

The need to rebuild and repair the nation's aging infrastructure creates a strong market for Civil graduates. Entry-level jobs may be in computer aided design (CAD), highway design, surveying, structural detailing, construction materials testing, construction management, inspection, or cost estimating. Over the past two years, starting salaries for graduates of the program have averaged $23,900 per year.

The Civil Engineering Technology program is a modern educational program, incorporating state-of-the-art labs, CAD and other computer applications throughout the curriculum. It is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET). The program is designed for immediate career opportunities; however, about 30% of the graduates transfer into Bachelor level programs, and receive full two-year transfer credit at a number of institutions.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR

Fall Semester			Hours/Week Class	Hours/Week Lab	Credits/Semester
CST	106	Computers in Technology	2	2	3
ENG	110	College Writing I	3	0	3
MAT	150[1]	College Technical Math	4	0	4
CIV	113	Engineering Drawing I w/CAD	1	3	2
TEC	100	Technology Orientation	0	1	0.5
CIV	136	Construction Methods & Management	3	0	3
			13	**6**	**15.5**

Spring Semester			Class	Lab	Credits
CIV	114	Civil Drafting w/CAD	1	3	2
CIV	119	Architectural Drawing w/CAD	1	3	2
CIV	124	Mechanics	3	0	3
ENG	150	Technical Writing	3	0	3
MAT	160[1]	Applied Calculus I	4	0	4
PHY	161	Physics I	3	3	4
			15	**9**	**18**

SECOND YEAR

Fall Semester			Class	Lab	Credits
CIV	201	Surveying I	2	6	4
CIV	219	Strength of Materials	4	0	4
CIV	217w	Materials Testing	2	3	3
PHY	162	Physics II	3	3	4
CIV	238	Arch. Design & Bldg. Matl/s. w/CAD	(2)	(3)	(3)
		OR			
CIV	237	Hydraulics	(2)	(3)	(3)
			13	**15**	**18**

Spring Semester			Class	Lab	Credits
CIV	224	Reinforced Concrete Design	(2)	(3)	(3)
		OR			
CIV	226	Structural Steel Design	(2)	(3)	(3)
CIV	202	Surveying II	3	3	4
CIV	240	Soil Mechanics	2	3	3
CIV	231	Estimating & Construction Planning	1	3	2
SOS	120	Science, Tech. & Democratic Society	3	0	3
------------		Social Science Elective	3	0	3
			14	**12**	**18**

GRADUATION REQUIREMENTS: 69-1/2 CREDITS

Program supervised by:

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Curriculum Advisory Council:
Civil Engineering Technology

JOHN BRIZZELL / Regional Director, NYSDOT
JAMES BRYDEN, AIA / Bryden Architects
WILLIAM LANE / President, William H. Lane, Inc.
DENNIS T. O'DEA, P.E. / Project Engineer, NYSEG
GEORGE B. STEPHENS / Exec. Dir., Assoc. Bldg. Contractors of the Triple Cities, Inc.
RALPH VERRASTRO, P.E. / President, Delta Engineers, P.C.
GARY WOOD, P.E. / Consulting Engineer

Program supervised by:

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Communication and Media Arts

Associate in Science Transfer Program

The Program of instruction in Communication and Media Arts comprises theoretical and practically-oriented course offerings in audio and video production, photography, film, acting, and various types of communication. Communications courses emphasize acquisition of both technical proficiency and theoretical knowledge.

The program aims, on the one hand, to prepare graduates for immediate employment in a variety of communications-related occupations, and on the other hand, for transfer to Baccalaureate programs.

Graduates entering the job market after earning the associate degree will seek employment as production assistants, educational media technicians, media sales representatives, writers, on-air personnel and photographers.

Those transferring to upper division colleges will major in audio-visual technology, film and photography, technical communications, radio and TV broadcasting, journalism, graphic reproduction, acting and advertising. Subsequently, they will seek employment as photographers, filmmaker/cinematographers, scriptwriters, media producers, broadcasters, newspaper reporters, studio technicians, instructional media specialists, video and audio engineers, copy writers, media directors, actors and actresses, production media specialists, and sales or marketing managers.

SEQUENCE OF COURSES: This model is a two-year course schedule (leading to an A.S. degree) for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR		**Hours/Week**		**Credits/Semester**
Fall Semester		Class	Lab	
ENG 110	College Writing I	3	0	3
HIS 115	Modern Global History	3	0	3
COM 100	Intro to Mass Media	3	0	3
COM	Elective (choose one) ART 112 - Beginning Photography COM 125 - Introduction to Audio Theory and Production COM 130 - Introduction to Video Theory and Production COM 205 - Introduction to Film Making [1]THR 140 - Presentation for Radio/TV COM 150 - Public Relations Communication	3	0	3
MAT	Mathematics	3	0	3
PED[1]	Phys. Ed. or THR 165	0	2	1
		15	**2**	**16**
Spring Semester				
SOS 155w	Media and Society	3	0	3
	Civic Ed. Requirement[2]	3	0	3
——	Electives (choose one) COM 125 - Introduction to Audio Theory and Production COM 130 - Introduction to Video Theory and Production COM 210 - Advanced Video Production/COM - Intermediate Film Making[3] THR 266/276 - Acting for TV, Film and Comm., Rehearsal and Perf. for Tele.	6	0	6
——	Science Elective	3 (4)	0-1	3-4
		16 (17)	**2**	**16-17**
SECOND YEAR				
Fall Semester				
	Humanities Elective (Art, MUS, THR)	3	0	3
COM 200w	Image Theory	3	0	3
CST 105	Understanding Computers or BIT 180 - Communications/Computers	3	0	3
	COM electives[3]	6	0	6
		15	**0**	**15**
Spring Semester				
COM 115	Writing for Media	3	0	3
ENG 220	Communicating About Ideas and Values	3	0	3
——	Humanities Elective	3	0	3
	COM electives[3]	9	0	9
		18	**0**	**18**

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[1] A minimum of 1 credit must be taken from PED 118, 119, 127, 135, 137, 143, 146, 147, 148, 155, 173.

[2] HIS 130, POS 201, 204, ECO 111, SOC 111, SOS 111, 120

[3] COM electives ART 112, 202, 212, COM 125, 130, 145, 150, 205, 210, 215 (250 and 299 by advisement only), THR 140, 266, 276 or advisor approved elective.

Computer Information Systems

Associate in Applied Science

The Computer Information Systems program consists of a sequence of college level courses leading to the Associate in Applied Science degree. The curriculum emphasizes both the theory and application of established computer programming and business methods, and prepares the students for immediate employment. Graduates are prepared to work in a business environment where a knowledge of computer programming and application software is necessary. These positions may include computer operator, junior programmer, application developer, database specialist, and information processing or computer inventory control.

The program may take more than two years to complete depending on a student's academic background. Preparatory courses are offered for students not meeting entry requirements for the regular Computer Information Systems program. Courses taken to meet prerequisite requirements will not count as credit towards the Computer Information Sytems degree. Transfer to four-year schools to pursue a bachelor of science program in Computer Information Systems, Management Information Systems or Business Management is available. Students planning to transfer should seek the advice of the department chairperson. Students can attend full-time or part-time, both day and evening.

FIRST YEAR			HOURS/WEEK		CREDITS/SEMESTER
Fall Semester			Class	Lab	
CST	117	Language Independent Design Tools	2	0	2
CST	119	Computer Concepts and Applications	2	2	3
CST	113	Intro. to C^{++}	2	2	3
ENG	110	College Writing I	3	0	3
BUS	100	Accounting I	4	0	4
CST	135	Intro. to the Internet	1	0	1
CST	136	Computer Maintenance	1	0	1
CST	137	Intro. to Multimedia	1	0	1
			16	**4**	**18**
Spring Semester					
CST	128	Structured Programming in COBOL	3	2	4
CST	158	Spreadsheets - Financial Applications	2	2	3
ECO	111	Macroeconomics	3	0	3
MAT	125	Statistics I Using Computers	3	1	3
BUS	101	Accounting II	4	0	4
			15	**5**	**17**
SECOND YEAR					
Fall Semester					
CST	200	Systems Analysis & Design	2	2	3
CST	213	Database Systems	2	2	3
		Approved BUS, CST, or MAT elective	2-4	0-2	3-4
CST	218w	Advanced COBOL	2	2	3
ECO	110w	Microeconomics	3	0	3
			11-13	**6-8**	**15-16**
Spring Semester					
SPK	110	Effective Speaking	3	0	3
CST	215	Systems Development	2	2	3
CST		Approved Elective	2-3	0-2	3-4
PHS		Approved Elective	3	3	4
ENG			3	0	3
			13-14	**5-7**	**16-17**

GRADUATION REQUIREMENT: 66-68 CREDITS

Program supervised by:

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Computer Recommendation:

A student seeking a career in the computer programming profession should have a home computer. Students will have to use computers to write programs, analyze problems, make presentations, and write reports. Many assignments cannot be completed without computers. While the College provides access to computers, it is not possible to provide enough machines or convenient times for everyone. Students are strongly urged to purchase Windows-capable systems with speeds of at least 300 MHZ, with 64 Meg of RAM, and a 4 Gb hard drive. The CST department currently uses Microsoft Visual C^{++} as its main computing language.

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Computer Recommendation:

A student seeking a career in the computer programming profession should have a home computer. Students will have to use computers to write programs, analyze problems, make presentations, and write reports. Many assignments cannot be completed without computers. While the College provides access to computers, it is not possible to provide enough machines or convenient times for everyone. Students are strongly urged to purchase Windows-capable systems with speeds of at least 300 MHZ, with 64 Meg of RAM, and a 4 Gb hard drive. The CST department currently uses Microsoft Visual C^{++} as its main computing language.

NOTE: The program may take more than two years to complete depending on a student's academic background. Preparatory courses are offered for students not meeting entry requirements into the regular Computer Science program. Courses taken to meet prerequisite requirements will not count as credit towards the Computer Science degree. Students can attend full-time or part-time, both day and evening.

Computer Science

Associate in Science Transfer Program

The Computer Science program leads to an Associate in Science degree and prepares students for transfer to a four year college or university. In the first semester, the student must select a course sequence with a focus on their transfer program.

The following course sequences are given to help the student visualize typical student schedules. Each individual student's schedule is determined with the help of a computer studies academic advisor. The Information Systems course sequence prepares the student to continue toward a Bachelor's degree in Computer Information Systems, Management Information Systems, or Business. The Technical course sequence prepares the student to continue toward a Bachelor's degree in Computer Science. The Math course sequence prepares the student to continue toward a Bachelor's degree in Math or a Math/ Computer Science combination. Students generally transfer with junior standing.

Information Systems Background

FIRST YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
CST117	Language Independent Design Tools	2	0	2
CST119	Computer Concepts and Applications	2	2	3
CST133	Structured Prog. in C^{++}	3	2	4
ENG110	College Writing I	3	0	3
MAT181	Calc I w/Analyt Geometry	4	0	4
— —	Social Science Elective.	3	0	3
		17	**4**	**19**
Spring Semester				
CST128	Structured Prog with COBOL	3	2	4
HIS	History Elective	3	0	3
MAT182	Calc II w/Analyt Geometry	4	0	4
PHI202	Logic	3	0	3
— —	Social Science W Elective	3	0	3
PED	Physical Ed. Electives	0	2	1
		16	**4**	**18**

SECOND YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
CST218w	Advanced COBOL	2	2	3
MAT250	Discrete Mathematics	4	0	4
BUS100	Accounting I	4	0	4
— —	Lab Science (begin sequence)	3	3	4
CST200	Systems Analysis	2	2	3
	or			
MAT264	Linear Algebra	4	0	4
		15-17	**5-7**	**18-19**
Spring Semester				
ENG		3	0	3
BUS101	Accounting II	4	0	4
— —	Lab Science (complete sequence)	3	3	4
MAT/or CST	Approved Elective	2-4	0-2	3-4
PED	Physical Education Electives	0	2	1
		12-14	5-7	15-16

Graduation Requirements: 70-72 Credits

Mathematics Background

FIRST YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
CST117	Language Independent Design Tools	2	0	2
CST119	Computer Concepts and Applications	2	2	3
CST133	Structured Prog. in C^{++}	3	2	4
ENG110	College Writing I	3	0	3
MAT181	Calc I w/Analyt Geometry	4	0	4
— —	Social Science Elective.	3	0	3
		17	**4**	**19**
Spring Semester				
CST150	C^{++}Programming with Objects	2	2	3
HIS	History Elective	3	0	3
MAT182	Calc II w/Analyt Geometry	4	0	4
CST170	Digital Logic	2	2	3
— —	Social Science Elective.	3	0	3
PED	Physical Ed. Electives	0	2	1
		14	**6**	**17**

SECOND YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
CST202w	Data Structures with C/C^{++}	2	2	3
MAT250	Discrete Math	4	0	4
MAT281	Calc. III/w Ana. Geometry	4	0	4
PHY161	Physics I	3	3	4
ENG		3	0	3
		16	**5**	**18**
Spring Semester				
MAT264	Linear Algebra	4	0	4
MAT266	Intro. to Higher Math	3	0	3
PHY162	Physics II	3	3	4
CST	Approved Elec.	(2)	(2)	(3)
	or			
MAT282	Differential Equations	(4)	(0)	(4)
PHI202	Logic	3	0	3
PED	Physical Ed.Electives	0	2	1
		15-17	**5-7**	**18-19**

Total Credits: 72-73

Technical Background

FIRST YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
CST117	Language Independent Design Tools	2	0	2
CST119	Computer Concepts and Applications	2	2	3
CST133	Structured Prog. in C^{++}	3	2	4
CST170	Digital Logic	2	2	3
ENG110	College Writing I	3	0	3
MAT181	Calc I w/Analyt Geometry	4	0	4
		16	**6**	**19**
Spring Semester				
CST150	C^{++} Programming with Objects	2	2	3
CST220	Microproc & Assembly Language	2	2	3
— —	Social Science Elective.	3	0	3
MAT182	Calc II w/Analyt Geometry	4	0	4
PHI202	Logic	3	0	3
PED	Physical Ed. Electives	0	2	1
		14	**6**	**17**

SECOND YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
CST225w	Introductions to Small Systems	2	2	3
MAT250	Discrete Mathematics	4	0	4
PHY161	Physics I	3	3	4
CST202w	Data Structures with C/C^{++}	2	2	3
— —	Social Science Elective.	3	0	3
		14	**7**	**17**
Spring Semester				
MAT264	Linear Algebra or MAT or CST Approved Elective	2-4	0-2	3-4
CST228w	GDI Programming with C/C^{++}	2	2	3
PHY162	Physics II	3	3	4
ENG		3	0	3
PED	Physical Ed. Elective	0	2	1
HIS	History Elective	3	0	3
		13-15	**7-9**	**17-18**

Total Credits: 70-71

Computer Technology

Associate in Applied Science

The Computer Technology program consists of a sequence of college level courses leading to the Associate in Applied Science degree. Computer Technology places less emphasis on mathematics and more on computer hardware, digital logic, and microprocessors. Graduates are prepared to work in a technical environment where a knowledge of the interface between hardware and software is necessary. These positions may include computer operators, technician/programmers, or engineering aides, working on large software projects or working directly with digital devices such as microprocessors and computer interfaces for sensors and controllers.

The program may take more than two years to complete depending on a student's academic background. Preparatory courses are offered for students not meeting entry requirements for the regular Computer Technology program. Courses taken to meet prerequisite requirements will not count as credit towards the Computer Technology degree. Students may elect to transfer to four-year schools to pursue a bachelor of science program in Computer Science or Information Technology. Students planning to transfer should seek the advice of the department chairperson. Students can attend full-time or part-time, both day and evening.

FIRST YEAR			HOURS/WEEK		CREDITS/SEMESTER
Fall Semester			Class	Lab	
CST	106	Computers in Technology	2	2	3
CST	170	Computer Logic	2	2	3
EET	121	Electrical Circuits	3	3	4
ENG	110	College Writing I	3	0	3
MAT	150	College Technical Math	4	0	4
TEC	100	Orientation	1	0	0.5
			15	**7**	**17.5**
Spring Semester					
CST	117	Lang. Indep. Design	2	0	2
CST	119	Computer Concepters	2	2	3
CST	133	Struct Prog. in C^{++}	3	2	4
CST	220	Microprocessors	2	2	3
MAT	160	Applied Calculus	4	0	4
		Social Science Elective	3	0	3
			16	**6**	**19**
SECOND YEAR					
Fall Semester					
CST	135	Intro. To The Internet	1	0	1
CST	136	Computer Maintenance	1	0	1
CST	137	Intro. To Multimedia	1	0	1
CST	200	Systems Analysis	2	2	3
CST	225w	Intro. To Small Systems	2	2	3
PHY	161	Physics I	3	3	4
		Social Science Elective	3	0	3
			13	**7**	**16**
Spring Semester					
CST	208	Intro. To Networking	3	0	3
CST	216	Visual Basic for Programmers	2	2	3
EET	150w	Electronic Devices	4	3	5
ENG	220	Communicating About Ideas and Values	3	0	3
PHY	162	Physics II	3	3	4
			15	**8**	**18**

GRADUATION REQUIREMENT: 70.5 CREDITS

Program supervised by:

William H. Murray
Office: Applied Technology Building, Room 011
Telephone: 607 778-5022
E-mail: murray_w@sunybroome.edu

Computer Recommendation:

A student seeking a career in the computer programming profession should have a home computer. Students will have to use computers to write programs, analyze problems, make presentations, and write reports. Many assignments cannot be completed without computers. While the College provides access to computers, it is not possible to provide enough machines or convenient times for everyone. Students are strongly urged to purchase Windows-capable systems with speeds of at least 300 MHZ, with 64 Meg of RAM, and a 4 Gb hard drive. The CST department currently uses Microsoft Visual C^{++} as its main computing language.

w-Writing Emphasis Course

Program supervised by:

Gregory B. Talley
Office: Titchener Hall, Room 211D
Telephone: 607 778-5192

Curriculum Advisory Council: Criminal Justice

CARL FENESCY / Broome County Security Director
DAVID HARDER / Broome County Sheriff
ROBERT KENT / NYS Office of Parole
ALEX MINOR / Binghamton Police Department
DAVID NEMEC / Broome County Probation
ROGER SHALLER / Binghamton Police Department
HON. MARTIN SMITH / Broome County Judge
KENNETH STICA / Vestal Police Chief
STEPHEN VIZVARY / Security Consultant
RICHARD WAFFLE / NYS Park Police
J. BRADLEY WAHL / Broome County Probation, Retired

Criminal Justice-Corrections

Associate in Science Transfer Program

This program is designed for full-time students desiring employment after two years of study in a corrections field. Students currently employed in corrections will also benefit from this course of study. Careful planning and selection of courses is necessary to complete the program in two years.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

			HOURS/WEEK		CREDITS/SEMESTER
FIRST YEAR					
Fall Semester			Class	Lab	
ENG	110	College Writing I	3	0	3
SOC	110	Introduction to Sociology	3	0	3
HIS	130	U.S. History I	3	0	3
CRJ	101	Introduction to Criminal Justice	3	0	3
CRJ	105	Introduction to Corrections	3	0	3
PED	118	Personal Fitness	0	2	1
			15	**2**	**16**
Spring Semester					
ENG	111	College Writing II	3	0	3
PSY	110	General Psychology	3	0	3
MAT	113	Math Explorations I	3	0	3
CRJ	125	Criminal Law	3	0	3
CRJ	235	Correctional Administration	3	0	3
			15	**0**	**15**
SECOND YEAR					
Fall Semester					
POS	201/ 204	American Government State and Local Government			
SOS	111	Public Policy	3	0	3
— —		Psychology or Sociology Elective	3	0	3
CRJ	115	Juvenile Justice	3	0	3
CRJ	212W	Criminal Procedure and Constitutional Law	3	0	3
CRJ	205	Correctional Law	3	0	3
			15	**0**	**15**
Spring Semester					
ENG	220	Communicating About Ideas	3	0	3
SPK	110	Effective Speaking	3	0	3
— —		Science	3	0-3	3-4
CRJ	240	Community Corrections	3	0	3
CRJ	___	Criminal Justice Elective	3	0	3
			15	**0-3**	**15-16**

Total Credits: 61-62

[1] **A Criminal Justice-Corrections certificate is available to students who complete a predetermined selection of courses at left. Please contact the department chairperson, above, for more information.**

Recommendations for Electives
See electives under Criminal Justice

See notes under Criminal Justice for recommended courses and written emphasis course information.

w-Writing Emphasis Course

Criminal Justice-Police

Associate in Applied Science

This program is designed for full-time students desiring employment after two years of study. Careful planning and selection of courses is necessary to complete the program in two years. Consult the Criminal Justice Department Chair for specific details on selection of proper electives. Criminal Justice electives are described on page 121, and some Criminal Justice courses are given in the evening only. (Students entering in the spring semester may require more than four semesters to complete the degree.) Students entering criminal justice must understand that most law enforcement agencies have physical, psychological, and medical fitness standards, and require a background free of felony and serious misdemeanor convictions. Not for prospective law school students.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR

Fall Semester			**HOURS/WEEK** Class	Lab	**CREDITS/SEMESTER**
ENG	110	College Writing I	3	0	3
SOC	110	Introduction to Sociology	3	0	3
HIS	130	U.S. History I	3	0	3
CRJ	101	Introduction to Criminal Justice	3	0	3
CRJ	115	Juvenile Justice	3	0	3
PED	118	Personal Fitness	0	2	1
			15	**2**	**16**

Spring Semester					
ENG	111	College Writing II	3	0	3
PSY	110	General Psychology	3	0	3
MAT	113	Math Explorations I	3	0	3
CRJ	125	Criminal Law	3	0	3
CRJ	230	Criminal Investigation	3	2	3
			15	**2**	**15**

SECOND YEAR

Fall Semester					
POS	201/ 204	American Government State and Local Government			
SOS	111	Public Policy	3	0	3
— —		Psychology or Sociology Elective	3	0	3
		Science	3	0-3	3-4
CRJ	212W	Criminal Procedure and Constitutional Law	3	0	3
CRJ	245	Criminolgy	3	0	3
			15	**3**	**15-16**

Spring Semester					
ENG	220	Communicating About Ideas	3	0	3
SPK	110	Effective Speaking	3	0	3
CRJ	215	Police Administration	3	0	3
CRJ	___	Criminal Justice Elective	3	0	3
CRJ	___	Criminal Justice Elective	3	0	3
			15	**0**	**15**

Total Credits: 61-62

Program supervised by:

Gregory B. Talley
Criminal Justice Department Chair
Office: Titchener Hall, Room 211D
Telephone: 607 778-5192

Curriculum Advisory Council:
Criminal Justice

CARL FENESCY / Broome County Security Director
DAVID HARDER / Broome County Sheriff
ROBERT KENT / NYS Office of Parole
ALEX MINOR / Binghamton Police Department
DAVID NEMEC / Broome County Probation
ROGER SHALLER / Binghamton Police Department
HON. MARTIN SMITH / Broome County Judge
KENNETH STICA / Vestal Police Chief
STEPHEN VIZVARY / Security Consultant
RICHARD WAFFLE / NYS Park Police
J. BRADLEY WAHL / Broome County Probation, Retired

Recommendations for Electives

CRJ - 130, 225, 255, 260, 295, 205, 235, 240, 245
MATH-SCI - CHM 120, 121, PHS 111, BIO 111-112, MAT 113-114, 117
PSY - 217, 227, 210
SOC - 210, 234, 111
PHI - 102, 206, 201
SOS - 111
SPA - 115

Two W emphasis courses are required after ENG 110 and before ENG 220.

w - Writing Emphasis Course

[1] Recommended science courses are BIO 111, 112, 131, 132. Mathematics courses are by Placement Test; students usually take MAT 113, 114, 117, 124. (Developmental math may be necessary but is not creditable toward degree.)

[2] One credit of Physical Education is required. It must be chosen from among: PED 118, 119, 127, 135, 143, 144, 146, 147, 148, 155, 173.

General Education Requirements: See page 21.

(Certified) Dental Assisting

Certificate Program

A graduate of the Certified Dental Assisting program will function as an integral member of the dental health team. A Certified Dental Assistant will perform chairside assisting and related office and laboratory procedures, under the direction and personal supervision of the dentist.

Duties will include patient education, taking preliminary vital signs, placing and removing rubber dams, selecting and pre-fitting provisional crown and orthodontic bands, removing orthodontic and ligature wires, placing and removing matrix bands, taking impressions for study casts and removing periodontal dressings. The graduate will also perform all duties deemed acceptable for unlicensed dental assistants.

Graduates are qualified to take the Certified Dental Assisting Examination as approved by the State of New York.

FIRST YEAR		Hours/Week		Credits/Semester
Summer Semester		Class	Lab	
CDA 102	Practice Management & Computers	1	0	1
CDA 103	Ethics/Legal Aspects & Professionalism	1	0	1
CDA 110	Infection Control	1	0	1
		3	**0**	**3**
Fall Semester				
CDA 101	Dental Assisting I	1	0	1
CDA 101L	Dental Assisting I Lab	0	6	2
CDA 104	Intro to Biomedical Sciences	2	0	2
CDA 112	Oral Anatomy & Physiology	2	0	2
CDA 114	Radiography	1	0	1
ENG 110	College Writing I	3	0	3
		9	**6**	**11**
Spring Semester				
CDA 105	Dental Assisting II	1	0	1
CDA 105L	Dental Assisting II Lab	0	4	1
CDA 106	Clinical Experience Practice	0	4	1
CDA 107	Oral Pathology/Dental Therapeutics	2	0	2
CDA 108	Oral Health Education & Preventative Dentistry	1	0	1
CDA 116	Dental Materials	3	0	3
PSY 110W	General Psychology	3	0	3
		10	**8**	**12**

Certificate Requirements: 26 Credits

Program supervised by:

Dorothy J. Walsh
Office: Decker Center, Room 217
Telephone: 607 778-5149
E-mail: walsh_d@sunybroome.edu

For important general information regarding Health Science curricula see pages 10 and 22.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs, where clinical experience or on-campus Dental Clinic is a curriculum requirement, should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science curricula.

Dental Hygiene

Associate in Applied Science

The Dental Hygiene curriculum is designed to prepare students for the contemporary practice of dental hygiene. Successful completion of the curriculum permits one to take the required written and practical licensure examinations.

The Dental Hygiene Department teaches all functions allowed by the New York State Practice Act to clinical competency with the following exceptions: removing sutures; placing and removing periodontal dressings; and placing and removing matrix bands. These are services which require the personal supervision of the dentist and may need additional training in the office practice setting.

Dental Hygiene graduates averaged $30,697 as starting salaries in 1998, ranging from $29,120 to $40,040.

Students who wish may transfer to a baccalaureate program to pursue a career in public health, health management, health or dental hygiene education

The program is accredited by the ADA Commission on Dental Accreditation.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR			HOURS/WEEK		CREDITS/SEMESTER
Fall Semester			Class	Lab	
BIO	131	Human Biology I	3	2	4
DEN	101	Dental Hygiene I	2	8	4.5
DEN	103	Oral Anatomy & Physiology	2	3	3
DEN	108	Infection Control in Dentistry	1	0	1
DEN	109	Ethical/Legal Considerations	1	0	1
ENG	110	College Writing I	3	0	3
			12	**13**	**16.5**

Spring Semester					
BIO	132	Human Biology II	3	2	4
BIO	150	Microbiology	3	3	4
DEN	102	Dental Hygiene II	3	8	5.5
DEN	106	Clinical Dental Radiography	1	2	2
DEN	107	Introduction to Periodontology	1	0	1
DEN	110	Dental Materials	1	3	2
			12	**18**	**18.5**

SECOND YEAR					
Fall Semester					
DEN	201	Dental Hygiene III	2	12	6
DEN	204	General & Oral Pathology	3	0	3
DEN	205	Periodontology	2	0	2
DEN	206	Dental Pharmacology	2	0	2
DEN	209	Nutrition	3	0	3
PSY	110w	General Psychology	3	0	3
			15	**12**	**19**

Spring Semester					
DEN	202	Dental Hygiene IV	2	12	6
DEN	213	Public Health	2	2	3
DEN	214	Current Topics in DH	3	0	3
ENG	220	Communicating About Ideas and Values	3	0	3
Social Science Civic Education Elective w			3	0	3
			13	**14**	**18**

GRADUATION REQUIREMENT: 72 CREDITS

Program supervised by:

Dorothy J. Walsh
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E-mail: walsh_d@sunybroome.edu

Curriculum Advisory Council: Dental Hygiene

JEANETTE BRENNAN, R.D.H.
DONALD BRONSKY, D.D.S. / Orthodontist
EDWARD A. BUDNIKAS, D.M.D. / Orthodontist
KATHY CROWLEY, R.D.H.
RANDOLPH A. HOLLY, D.D.S. / Oral Surgery
LISA LAPALLO, R.D.H.
ANTHONY C. PALOMBARO, D.D.S. / General Practice
CAROL TULL, R.D.H.
KENNETH WARNER, R.D.H.
J. MICHAEL WEBER, D.M.D., M.S., / Periodontist

NOTE: Students must complete a Dental Hygiene Department Health Questionnaire, PPD Mantoux lab test, and be certified in American Heart Association CPR for Health Care Providers (Level C) prior to admittance to Dental Hygiene I. Students must be recertified annually.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs where clinical experience or on-campus Dental Clinic is a curriculum requirement should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science curricula.

Program supervised by:

Richard P. Behr
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Reynald C. Wojdat
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E-mail: wojdat_r@sunybroome.edu

Curriculum Advisory Council:

RONNIE DECOSSE, R.N. / QI Coordinator, River Meade

MARY ANN SWARTZ, M.S.R.D. / Food Service Director, Willow Point Nursing Facility

RAYMOND DENNISTON / Food Service Director, Johnson City CSD

TINA HASEMANN, M.S., R.D., C.D.N. / NY-PENN Nutrition Services, Inc.

MICHAEL J. MONAHAN, C.D.M. / Binghamton General Hospital

Dietary Manager

Certificate Program

Students may earn a certificate from the Dietary Managers Association by completing the following courses:

FIRST YEAR			CREDITS/SEMESTER
Fall Semester			
DIA	101	Nutrition	3
DIA	103	Dietary Management Field Experience I	3
BHM	110	Sanitation and Safety	3
DIA	204	Dietary Management Field Experience II	3
BHM	216	Quantity Food Production	3
BHM	235	Hotel and Restaurant Cost Control	4
BUS	248	Human Resource Management	3
			22

Students earning a certificate in Dietary Manager may transfer all credit toward a degree in Hotel/Restaurant Management, and will earn the degree after completing 43-45 additional credits.

NOTE: There is a requirement for supervised work experience by a registered dietitian who acts as a preceptor to the student. All students entering the program are responsible for finding a preceptor, although every aid possible will be offered by the Department of Business.

Early Childhood

Associate in Applied Science[1]

The Early Childhood program leads to an Associate in Applied Science degree and is designed to prepare graduates for immediate employment or to enhance the skills and advancement opportunities of those already employed.

ECE courses may meet DSS requirements for training and Child Development Associate (CDA) credentials. A certificate in Early Childhood may be awarded with successful completion of the first two semesters of coursework.

Elementary Education majors should enroll in the LAED.

Articulation agreements enable AAS Early Childhood students transfer to elementary education programs at SUNY Oneonta and Fredonia.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR

Fall Semester

			Hours/Week Class	Lab	Credits/Semester
ENG	110	College Writing I	3	0	3
PSY	110	General Psychology	3	0	3
ECE	110	Introduction to Early Education	3	0	3
SPK	102	Effective Speaking	3	0	3
ECE	175	Techniques of Observation and Evaluation	3	0	3
			15	**0-2**	**15**

Spring Semester

			Class	Lab	Credits
ENG	111	College Writing II	3	0	3
PSY	211w	Child Development	3	0	3
ECE	120	Curriculum Development	3	0	3
ECE[2]		Elective	3	0	3
— —[5]		Math Elective	3-4	0	3
PED[4]		Physical Ed. Elective	0	2	1
			15-16	**2**	**16**

SECOND YEAR

Fall Semester

			Class	Lab	Credits
ECE	200w	Field Experience I	2	4	4
		Civic Ed. Elective	3	0	3
— —[5]		Science Elective	3-4	0-2	3-4
ECE[2]		Early Childhood Elective	3	0	3
— —[3]		Humanities Elective	3	0	3
			14-15	**4-6**	**16-17**

Spring Semester

			Class	Lab	Credits
ENG	220	Communicating About Ideas and Values	3	0	3
ECE	201	Field Experience II	2	4	4
ECE[2]		Early Childhood Elective	3	0	3
SOC 110		Introduction to Sociology	3	0	3
			11	**4**	**13**

Program supervised by:

Margherita A. Rossi
Psychology, Education, and
Human Services Department
Office: Titchener Hall, Room 210D
Telephone: 607 778-5216

Barbara Nilsen, Ed.D.
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Email: nilsen_b@sunybroome.edu

Curriculum Advisory Council:

NANCY SELIGA / Director, BC Center Child Care
LINDA PRUTISTO / CEO, Broome County Child Development Council
JUDY KUGLEMASS / Professor Special Education, Binghamton University
PAT NASH / Director, Endwell Nursery School
ANN MARIE STONE / Director, BOCES, Early Childhood Program

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[1] **An Early Childhood certificate is available to students who complete a predetermined selection of courses on this page. Please contact the program coordinator, above, for more information.**

[2] ECE electives may be taken from among ECE 115 Music for Young Children, ECE 140 Art for Young Children, ECE 150 Motor Development, ECE 160 Nutrition for Young Children, ECE Child Health and Safety, ECE 210 Special Needs Children in ECE, ECE 220 Issues and Innovations in Early Childhood, ECE 245 Social Development of Young Children, ECE 250 Language in Early Childhood, ECE 230 Working with Parents, ECE 260 Management and Administration.

[3] Humanities electives include any LIT, MUS, PHI, or THR, such as LIT 263 Children's Literature, MUS 101 Introduction to Music, THR 117 Creative Dramatics, THR 201 Children's Theatre, PHI 203 Philosophical Issues in Education.

w - Students must take two Writing Emphasis ("W") Courses after ENG 110 and before ENG 220

[4] One credit of Physical Education is required from among: PED 118, 199, 127, 135, 143, 146, 147, 148, 173.

[5] Recommended science courses are BIO 111, 112, 115, 120, 131, 132; PHS 113, 114, 115, 116. Mathematics courses are by Placement Test; students usually take MAT 113, 114, 117, 124. (Developmental math may be necessary but is not creditable toward degree.)

ECE Courses may meet DSS Requirements for Training and Child Development Associate (CDA) credentials.

General Education Requirements: See page 21.

Program supervised by:

Alan C. Dixon
Office: Applied Technology Building, Room 201
Telephone: 607 778-5017
E-mail: dixon_a@sunybroome.edu

Curriculum Advisory Council:
Electrical Engineering Technology

MICHAEL COPPOLA / Eastern Telecom
ROBERT HOLMES / Universal Instruments
CHARLES RANDALL / Macintosh Labs
RUSSELL REID / NYSEG
ROBERT STRAUSS, IBM Corp.
JOSEPH SVOBODA / BOCES (retired)
CHARLES TAYLOR / Binghamton University
T. KERRY WHITE / Lockheed Martin

See also:
Telecommunications Technology pg. 106

Electrical Engineering Technology

Associate in Applied Science

Electrical Engineering Technology emphasizes both the theory and the application of scientific and engineering methods, and prepares the student for immediate employment or for transfer to an upper division school upon graduation.

The graduate is prepared to be the intermediary between the design engineer and the skilled craftsman. EETs translate problems into solutions by building equipment using their knowledge of mathematics, physics, linear and digital electronics, microprocessor hardware and software, machines, robotics, process control, circuit analysis, and computer programming.

This program may require more than two years to complete if an entering student has not completed Math I, II, III and Physics in high school. Students lacking any of these courses enter Pre-Electrical Engineering Technology (see next page) and may be required to take MAT094 Algebra with Trig. I to prepare for MAT098 Algebra with Trig. II and PHY090 Preparatory Physics.

The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET).

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR			HOURS/WEEK		CREDITS/SEMESTER
Fall Semester			Class	Lab	
TEC	100	Introduction to Technology	1	0	1/2
EET	111	Electrical Construction Laboratory I	1	3	2
EET	121	Electrical Circuits	4	3	5
CST	106	Computer Applications	2	2	3
ENG	110	College Writing I	3	0	3
MAT	150[1]	Pre-Calculus	4	0	4
			15	**8**	**17-1/2**
Spring Semester					
EET	112	Electrical Construction Laboratory II	0	3	1
CIV	113	Drawing with CAD	1	2	2
EET	150w	Electronic Devices	4	3	5
EET	162	Computer Aided Network Analysis	3	0	3
ENG	150	Technical Writing	3	0	3
MAT	160[1]	Applied Calculus OR			
MAT	181[1]	Calculus with Analytic Geometry	4	0	4
			15	**8**	**18**
SECOND YEAR					
Fall Semester					
EET	201	Senior Seminar	1	0	0
EET	247w	Energy Conversions	3	0	3
EET	247l	Energy Laboratory Elective: LO1 Power Systems, LO2 Programmable Controllers, LO3 Energy Conversions	0	3	1
EET	251	Electronic Circuitry	3	3	4
EET	267	Digital Electronics and Microprocessors I	3	3	4
PHY	161	Physics I	3	3	4
SOS	120	Science, Technology and Democratic Society	3	0	3
			16	**11**	**19**
Spring Semester					
EET	202	Senior Seminar	1	0	0
EET	230	Electronic Design and Fabrication	0	3	1
EET	252	Electronic Systems	3	3	4
EET	27x	Technical Elective EET 270, Control Sys., EET 272 Microcontroller Fund., EET 274 Robotic Appli.	3	3	4
EET	27x	Technical Lab Elective EET 271 Com. Tech., EET 273 Computer Design, EET 275 Machine Vision	0	3	1
PHY	162	Physics II	3	3	4
— —		Social Science Elective	3	0	3
			13	**15**	**17**

GRADUATION REQUIREMENTS: 70-1/2 CREDITS

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[1] Students should consult with the department chairperson or designee to determine the appropriate mathematics course.

Pre-Electrical Engineering Technology

SUGGESTED SEQUENCE OF COURSES: The following are suggested sequences of courses for students not prepared for entry into the regular Electrical Engineering Technology program. This sequence is for students who have not had the necessary high school math and physics. Each entering student is tested in the Learning Assistance Center prior to scheduling. The actual student schedule is personalized by the department for each entering student.

FIRST YEAR		Hrs/Wk		Cred/Sem
First Semester		Class	Lab	
TEC100	Introduction to Technology	1	0	1/2
EET110	Introduction to Electricity	4	0	4
EET111	Electrical Construction Lab I	1	3	2
MAT098	Algebra w/Trig. II	4	0	4
CIV113	Drawing with CAD	1	3	2
PHY090	Preparatory Physics	3	2	4
		14	**8**	**16-1/2**
Second Semester				
EET112	Electrical Construction Lab II	0	3	1
EET115	Introduction to Digital Circuitry	3	0	3
ENG110	College Writing I	3	0	3
MAT150	College Technical Math	4	0	4
PHY161	Physics I	3	3	4
		13	**6**	**15**

OR		Hrs/Wk		Cred/Sem
Fall Semester		Class	Lab	
TEC100	Introduction to Technology	1	0	1/2
EET110	Introduction to Electricity	4	0	4
EET111	Electrical Construction Lab I	1	3	2
ENG110	College Writing I	3	0	3
MAT094	Algebra with Trig. I	4	0	4
CIV113	Engineering Drawing with CAD	1	3	2
		14	**6**	**15-1/2**
Spring Semester				
EET112	Electrical Construction Lab II	0	3	1
EET115	Introduction to Digital Circuitry	3	0	3
ENG150	Technical Writing	3	0	3
MAT098	Algebra with Trig. II	4	0	4
PHY090	Preparatory Physics	3	2	4
		13	**5**	**15**

Program supervised by:

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Program supervised by:

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**Curriculum Advisory Council:
EMT - Paramedic**

MARIA BERRY
BONNIE DEISTER
RICH HOWARD
BARBARA KIRBY
WILLIAM LOLLER
DEBBIE PHILLIPS
GLENN ROBERT
DR. MICHAEL SCHRECK
RAYMOND SEROWIK
DR. CHRISTIAN TVETENSTRAND
DR. RICHARD WU

Prerequisites:

Prior to admission into the paramedic program, the student must:

1. be at least 18 years of age;
2. have a high school diploma or an equivalent;
3. be currently certified as a basic EMT in New York State;
4. submit a completed application with high school and college transcripts and two letters of recommendation;
5. complete an interview with the program coordinator and medical director, and take a basic EMT-level written examination;
6. have a minimum of 1 year EMS experience;
7. apply and be admitted to Broome Community College.
8. must complete BIO 131/132 and College Writing I prior to or concurrently with beginning clinical classes.

Admission to the College and finishing General Education requirements does not guarantee admissions into Paramedic Clinical Class. Prerequisites must be met.

For important general information regarding Health Science curricula see pages 10 and 22.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs, where clinical experience or on-campus Dental Clinic is a curriculum requirement, should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science curricula.

Emergency Medical Technology/Paramedic

Associate in Applied Science

Broome Community College, in affiliation with Lourdes Hospital and United Health Services Hospitals, offers a two-year A.A.S. degree in EMT-Paramedic. This program offers education and training for provision of the highest level of pre-hospital care — the paramedic.

The program includes 360 classroom hours, 500 hospital clinical hours and 200 hours of field internship. The field internship will allow the student to integrate knowledge from the classroom with hands-on skills developed in the clinical rotations, and to apply both to field practice under the supervision of a paramedic preceptor.

Students may gain recognition of their existing experience by receiving advanced standing for portions of clinical and field internships.

Once prerequisites are met, most general education and liberal arts courses may be taken before, after or during EMT clinical courses.[8]

EMT clinical course schedule is available from the program coordinator along with starting dates for the next class.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR

Full-Time (11 months)

Semester 1/2/3

Courses			**Credits**
PMD	201	Paramedic I	18
PMD	202	Paramedic II	18
			36

SECOND YEAR

Semester I

ENG	110	College Writing I	3
PSY	110	General Psychology	3
CST	105	Understanding Computers	3
POS	201	Introduction to American Government or	3
POS	204	American State & Local Government	
BIO	131	Human Biology I	4
			16

Semester 2

ENG	220	Communicating About Ideas & Values	3
		Social Science/Civic Elective	3
MAT	113	Mathematical Explorations I or	3
MAT	114	Mathematical Exploration II	
BIO	132	Human Biology II	4
ELECTIVE			3
			16

GRADUATION REQUIREMENTS: 68 CREDITS

Engineering Science

Associate in Science Transfer Program

This curriculum's strong emphasis on Engineering Design, Communication Skills, and Teamwork makes it easy for students to transfer as juniors to four-year engineering institutions across the country. Immediate employment opportunities also exist for graduates. Students in the program have co-op opportunities available at many local industries. Curriculum coursework requirements provide the student with a firm foundation in the areas of Physics, Chemistry, Mathematics, and Digital Electronics. This degree is available in Asynchronous Learning (ASL) mode.

To facilitate student transfer, the College has joint, dual, and transfer admission agreements with many institutions including Binghamton University, Clarkson University, Cornell University, RIT, RPI, Wilkes University, and Buffalo University (SUNY). The Engineering Science department is a member of the Two Year Engineering Science Association which is affiliated with The Association of Engineering Colleges of New York State. Engineering Science students transfer primarily to Binghamton University Clarkson University, Rensselaer Polytechnic Institute, Rochester Institute of Technology, and Syracuse University. Most BCC ES graduates complete their BS within two years and either maintain or improve their GPA after transfer.

Design is an important component of the curriculum from the first semester. Many students choose to compete each year in statewide, regional, or national design competitions. Since 1990, these students have placed first or second in every competition they have entered, including two 2nd Place awards at the 1998 ASEE National Freshman Design Competition.

If you wish to obtain Bachelor's degrees in Engineering, Applied Mathematics, Physics or Engineering Management programs you will find Engineering Science the most appropriate course of study. Success in completing this program depends more on determination, effort, and learning strategies than on ability and preparation. If your goal is to graduate with a BS in Engineering, this program will provide the background required to allow you to transfer with junior status. If proper preparatory mathematics or science courses have not been taken, or if placement information indicates a problem, students are advised to take courses which help assure success in this rigorous program of study. (Please see page 12 for specific requirements.)

SEQUENCE OF COURSES: The following model meets all program requirements for students who are pursuing full-time study and wish to complete the course work in four semesters. Those who desire a slower pace or need preparatory courses will require more than four semesters.

FIRST YEAR		**Hours/Week**		**Credits/Semester**
Fall Semester		Class	Lab	
EGR 150	Engineering Design I and Graphics	1	3	2
CHM 145	Chemistry I	3	3	4
MAT 181	Calculus I with Analytic Geometry	4	0	4
PHY 181	Engineering Physics I	3	3	4
ENG 110/111	College Writing I/II	3	0	3
EGR 100	Engineering Orientation: Student Success I.	0	4	.5
		14	**13**	**17.5**
Spring Semester				
EGR 151	Engineering Design II	1	3	2
Engineering Elective		2/3	2/3	3
MAT 182	Calculus II with Analytic Geometry	4	0	4
PHY 182	Engineering Physics II	3	3	4
ENG 111/220		3	0	3
EGR 101	Engineering Orientation: Student Success II	0	4	.5
		13/14	**12/13**	**16.5**
SECOND YEAR				
Fall Semester				
EGR 289W	Digital Logic and Microprocessors	2	3	3
EGR 287	Engineering Design III	0	3	1
Engineering Elective		3	0	3
MAT 282	Differential Equations and Linear Algebra	4	0	4
SOS 120	or Social Science elective	3	0	3
PED 155	or PED Electives	1	4	2
EGR 200	Engineering Orientation: Student Success III	0	4	.5
		14	**14**	**16.5**
Spring Semester				
EGR 288	Engineering Design IV	0	3	1
Engineering Elective I		3	0	3
Engineering Elective II		3	0	3
Engineering Elective III		3	0	3
MAT 281	or Approved Mathematical Elective	4	0	4
Social Science Writing Emphasis Elective		3	0	3
EGR 201	Engineering Orientation: Student Success IV	0	4	.5
		16	**7**	**17.5**

GRADUATION REQUIREMENTS: 68 CREDITS

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Computer/Calculator Recommendation:

Students will have to use a computer to analyze problems, make presentations, and write reports. A familiarity with word processing, spreadsheets, and powerpoint will be helpful, but is not required. Many assignments cannot be completed without a computer. While the College provides access to computers, it is not possible to provide enough machines or convenient times for everyone. Students are strongly urged to purchase a Windows-capable system with a speed of at least 300 MHZ, with 32 Meg of RAM, a CD-ROM player, and a 4 GB hard drive. Internet access and a modem are very useful. Students will also need a graphing calculator.

Technical Elective

Recent curriculum changes have provided students with more choice of technical electives so that they can choose course work appropriate for their individual career path. Chemical Engineering majors usually take two semesters of Organic Chemistry, Biological or Environmental engineers usually take two semesters of Biology, and Computer Engineers prefer three semesters of programming classes. More traditional engineering fields usually take Statics, Dynamics and Circuits. Engineering Management options will require other substitutions. Social Science electives must include one writing emphasis course (indicated by a "W" in the course listing).

Financial Services

Associate in Applied Science

The Financial Services program combines business and financial courses leading to an Associate in Applied Science degree. The degree prepares the student for immediate employment in banks and other financial institutions. Selected courses provide prelicensing preparation for New York State or Federal licensing exams in Life, Accident, and Health Insurance, Real Estate for Salespersons and Securities Training (Series 6 and 63). Banking electives are offered in conjunction with the American Institute of Banking program.

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Curriculum Advisory Council: General Business

Membership of the Business Department Advisory Council consists of representatives from area organizations. The Committee members are selected to serve on a rotating basis and are selected annually with some members remaining on the council for multiple terms.

FIRST YEAR		**Hours/Week**		**Credits/Semester**
Fall Semester		Class	Lab	
BUS 111	Financial Accounting	4	0	4
BUS 107	Freshman Experience	1	0	1
BUS 112	Quantitative Business Methods	3	0	3
BUS 118	Business Law I	3	0	3
BUS 141	Marketing	3	0	3
ENG 110	College Writing I	3	0	3
		17	**0**	**17**
Spring Semester				
BUS 210	Managerial Accounting	4	0	4
BUS 120w	Business Law II	3	0	3
BUS 131	Personal Finance	3	0	3
BNK 168	Principles of Banking	3	0	3
MAT 113	Math Explorations or higher MAT	3	0	3
		16	**0**	**16**
SECOND YEAR				
Fall Semester				
BUS 135	Investments	3	0	3
BUS 172	NYS Life, Accident, and Health	2	0	2
BUS 184	Financial and Risk Management Practicum	4	0	4
ECO 110w	Microeconomics	3	0	3
SPK 110	Effective Speaking **or** Humanities Elective	3	0	3
——	Math **or** Science Elective	3-4	0-3	3-4
		18-19	**0-3**	**18-19**
Spring Semester				
BUS 152	Selling Fundamentals	3	0	3
BUS 183	Securities Training Series 6 & 63	3	1	3
BNK 184	Banking/Real Estate/Mortgage Practicum	4	0	4
OR				
BUS 163	Real Estate for Salespersons	2	1	2
OR				
——	Banking **or** Business Elective	3	0	3
——	[2]An advisor-approved computer elective (Choose from list below)	3	0	3
ECO 111	Macroeconomics	3	0	3
ENG	Advisor approved ENG course	3	0	3
		17-19	**2**	**17-19**

Total Credits: 68-71

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*or ENG 111, based on placement test.

[2] BUS 181 - The Internet with Business Applications: CST 105 - Computer Applications; CST 158 - Spreadsheets with Financial Applications; or Advisor approved CST course; or Approved BIT courses.

Students should check with their advisors during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

Fire Protection Technology

Associate in Applied Science[1]

For Part-Time Students

The Fire Protection Technology Program is designed to provide fire fighters and related fire service personnel with specialized training. The curriculum has been developed by a local advisory committee to meet the needs of the area, and specialized courses as well as general education courses constitute the degree program. Specialized courses include Fire Fighter Tactics and Strategy, Arson Investigation, Hydraulics, Hazardous Materials, Fire Prevention, and Building Construction.

This program is open to both paid and volunteer fire fighters of the community, as well as those persons in related firematic areas.

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed.

FIRST YEAR		**HOURS/WEEK**		**CREDITS/SEMESTER**
Fall Semester		Class	Lab	
ENG 110	College Writing I	3	0	3
FRS	Elective	3	0	3
FRS	Elective	3	0	3
	Chem or Math Elective	3	0	3-4
	Business Management Elective	3	0	3
		15	**0**	**15-16**

Spring Semester				
ENG 111	College Writing II	3	0	3
FRS	Elective	3	0	3
FRS	Elective	3	0	3
	Chem or Math Elective	3	0	3-4
	Business Management Elective	3	0	3
		15	**0**	**15-16**

SECOND YEAR				
Fall Semester				
	Free Elective	3	0	3
FRS	Elective	3	0	3
FRS	Elective	3	0	3
	Social Science / Civic Elective	3	0	3
	Free Elective	3	0	3
		15	**0**	**15**

Spring Semester				
ENG 220	Communicating About Values	3	0	3
FRS	Elective	3	0	3
FRS	Elective	3	0	3
	Social Science Elective	3	0	3
	Free Elective	3	0	3
		15	**0**	**15**

Program supervised by:

Gregory B. Talley
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Curriculum Advisory Council:
Fire Protection Technology

STEPHEN ANDREW / BCC Coordinator, Endicott Fire Chief
MICHAEL ASWAD / County Fire Coordinator and Director of Emergency Services
DONALD COLLINS / Endicott Fire Department
THOMAS GEISENHOF / Codes Officer - Owego/Student Representative
MICHAEL HEIDE / Endicott Fire Department
STEPHEN HRUSTICH / Endicott Fire Department
JOHN KRATCHOVIL / IBM Endicott Fire Officer
GEORGE MANEY / Fire Chief - Johnson City
DAVID RICKARD / Chief - Five Mile Point Fire Company
JAMES RYAN / NYS Fire Academy, Montour Falls
GEORGE SELTZER / President - Broome County Chiefs Assoc.
HARRY SMITH / Binghamton Fire Department
THOMAS VROMAN / Broome County Arson Task Force and Endicott Fire Department
MICHAEL WASHINGTON / Binghamton Fire Department
RICHARD WASHINGTON / Binghamton Fire Department

NOTE: Students must fulfill General Education Requirements. See page 21. **[Courses taken at the New York State Fire Academy at Montour Falls will be reviewed for credit on an individual basis using the credit by exam policy.]**

Recommended Electives
Chemistry: Suggest CHM 120 or CHM 121
Mathematics: Suggest MAT 136 (4 Credits) 124, 117 or as dictated by placement test.
Social Sciences: Choose from History, Anthropology, Sociology, Psychology, Political Science, Economics. One course must be from the following: SOC 111, HIS 130/131, HIS 187, POS 201, 204, SOS 111/120, 130, ECO 110/111.
Fire Protection Courses: Select from FRS 101, FRS 103, FRS 105, FRS 107, FRS 108, FRS 110, FRS 200, FRS 201, FRS 204, FRS 205*, FRS 250, FRS 299.
Management: Suggest BUS 245, 246, 248, 110, 118, 141, 249, 150.

Electives: Courses with FRS, MAT designators, CHM 121, or other courses with permission.

w - Writing Emphasis Course: Two are required after ENG 110 and before ENG 220

Fire Protection courses are offered on a rotation system. Each course is usually offered once every three semesters.

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[1] **A Fire Protection Technology certificate is available to students who complete a predetermined selection of courses on this page. Please contact the program coordinator, above, for more information.**

Program supervised by:

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Curriculum Advisory Council: Health Information Technology

MARY JO BOWIE, RRA, MS
DEBORAH SMITH, A.R.T. / Director, Medical Records, The Hospital
DOROTHY ERNEY, R.R.A. / Director, Medical Records, Binghamton Psychiatric Center
LINDA SMITH / Practicare Medical Management Services
SANDRA THOMPSON, R.R.A. / Director of Medical Records Our Lady of Lourdes Hospital
ELAINE TYLER, ART / Director, Medical Records Fairview Good Shephard
STUDENT / appointed annually

Health Information Technology

Associate in Applied Science

A medical record is the permanent report of a person's illness or injury kept to preserve information of medical, scientific and legal value. The record includes all medical reports which describe how the patient's illness was diagnosed and treated. Medical records are needed to help doctors diagnose and treat future illness, to verify insurance claims, to plan hospitals, to inform the public health officials, and to aid researchers.

The medical record technician works in the health information department of a hospital, clinic, nursing home, school of veterinary medicine or other health facility, and is responsible for many aspects of preparing, analyzing and preserving health information needed by the patients, by the hospital, and by the public. The duties include reviewing medical records for completeness and accuracy and also translating diseases and operations into the proper coding symbols.

Other duties include compiling statistics of many kinds, assisting the medical staff by preparing special studies and tabulating data from records for research. Supervising the day-to-day operation of a health information department, taking records to court and maintaining the flow of the total work picture.

Practice in the college health information laboratory as well as in medical records departments of cooperating hospitals and other health care facilities, either within or outside the area, provides opportunities for additional educational experience which is the vital core of the program.

Students in this program are eligible to take the Medical Record Accreditation Examination following graduation and upon completion receive the title of Accredited Record Technician (ART). Graduates can continue medical record education toward a baccalaureate degree at four-year colleges.

Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part time study.

FIRST YEAR			HOURS/WEEK		CREDITS/SEMESTER
Fall Semester			Class	Lab	
BIO	131	Human Biology I	3	2	4
ENG	110	College Writing I	3	0	3
HIT	101	Intro. to Health Information Systems	3	2	4
HIT	106	Medical Terminology	3	0	3
CST	105	Understanding Computers	2	2	3
			14	**6**	**17**
Spring Semester					
BIO	132	Human Biology II	3	2	4
HIT	222W	Medical Legal Aspects	3	0	3
HIT	116	Health Care Statistics	2	2	3
— —		Social Science Electives	6	0	6
— —		(Civic Elective (1W))			
MDA	210	Pharmacology	2	0	2
			16	**4**	**18**
SECOND YEAR					
Fall Semester					
BIO	140	Pathophysiology	3	0	3
HIT	203	Computers in Health Care	3	0	3
ENG	220	Communicating About Values	3	0	3
HIT	204	Inpatient Coding System	3	3	4
HIT	236	Quality Improvement	2	2	3
HIT	144[2]	Clinical Affiliation I	0	0	2
			14	**5**	**18**
Spring Semester					
HIT	210	Management Principles for HIT	2	2	3
HIT	295	Health Information Seminar	2	0	2
HIT	245[2]	Clinical Affiliation II	0	0	6
HIT	214	Ambulatory Care Coding	1	2	2
HIT	220	Survey of Healthcare Delivery	2	0	2
			7	**4**	**15**

GRADUATION REQUIREMENTS: 68 CREDITS

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[1] Students who have completed HIT 204 Inpatient Coding System and HIT 214 Ambulatory Care Coding may elect to take HIT 260 Advanced Coding and HIT 250 Medical Insurance Billing to earn a proficiency award in Coding and Reimbursement.

[2] HIT 144 requires 90 clinical hours over 15 weeks; HIT 245 is conducted in a six-week block time frame. Students will be in a participating facility 5 days a week/8 hours a day.

Suggested Elective(s):
HIT 107 Medical Transcription, DOT Word Processing/Keyboarding.

For important general information regarding Health Science curricula see pages 10 and 22.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs, where clinical experience or on-campus Dental Clinic is a curriculum requirement, should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science curricula.

Health Sciences: Individual Studies

Individual Studies: Health Sciences provides opportunities for students interested in achieving entry-level competencies in various Health Careers. By structuring appropriate areas of concentration, with the aid of an academic advisor, students may build the qualifications and skills needed for competence in today's multiskilled health care environment.

Associate in Science Degree (60 credits)

- 30 credits in student's area of concentration
- 30 credits in English, Humanities, Natural Science, Math, and Social Science, and Physical Education
  To include:
  - 9 credits of Humanities
  - 6 credits of Social Sciences (3 civic education)
  - 8 credits of Laboratory Science (Bio 131/132 required)
  - 2 credits in Physical Education

Associate in Applied Science (60 credits)

- 10 credits in Technical Electives
- 30 credits in student's area of concentration
- 20 credits in Humanities, Social Sciences, Math, Natural Sciences
  To include:
  - 6 credits in English
  - 6 credits in Social Sciences (3 civic education)
  - 3 credits Math
  - 8 credits Natural Sciences (Bio 131/132 required)

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Curriculum Advisory Council: Hotel/Restaurant Management

ELIZABETH G. DIBBLE / Vice President, McDonald's (STOMAC)

GREGORY G. MCGUIRE, FMP / General Manager, Binghamton Club

CAMERON M. CONVERT / Chef Manager, National Bank & Trust

STEPHEN J. LUPO / Partner, Lupo's S&S Char Pit

SUZANNE HARTRICK / Director of Sales and Marketing, Romolo's Banquets & Catering

MARI-ANNE JENNINGS / Vice President, Alamo Restaurants Corporation

MICHELLE ADAMS / General Manager, Comfort Innn

Hotel Restaurant Management

Associate in Applied Science

The Hotel/Restaurant Management program is a planned sequence of college level courses leading to the Associate in Applied Science degree. Hotel/Restaurant Management emphasizes business theory and application of industry-specific methods to prepare the student for immediate employment; however, some students decide to transfer to an upper division school.

Graduates of the Hotel/Restaurant Management program are employed in a variety of positions within food and hotel facilities, both in the local area and worldwide. Their responsibilities vary depending upon the position. Graduates have found opportunities in hotel front office management, food and beverage management, and sales and marketing.

The program may require more than two years to complete depending on a student's academic background. The department will tailor a program assuring each student the opportunity to earn the A.A.S. degree in Hotel/Restaurant Management.

FIRST YEAR		Hours/Week		Credits/Semester
Fall Semester		Class	Lab	
BUS 108	Accounting for a Service Business	4	0	4
BUS 107	Freshman Experience	1	0	1
BUS 112[1]	Quantitative Business Methods	3	0	3
BUS 118	Business Law I	3	0	3
BUS 141	Marketing	3	0	3
ENG 110*	College Writing I	3	0	3
		17	**0**	**17**
Spring Semester				
BHM 110[2]	Sanitation and Safety	3	0	3
BHM 125w[2]	Hospitality Law	3	0	3
BUS 229	Advertising	4	0	4
OR				
BUS 152	Selling Fundamentals	3	0	3
BHM 235[2]	Hotel / Restaurant Cost Control	4	0	4
— —	[4]An advisor-approved computer elective (Choose from list below)	3	0	3
		16-17	**0**	**16-17**
SECOND YEAR				
Fall Semester				
BHM 201[3]	Hotel/Restaurant Internship I	3	0	3
BHM 216[2]	Quantity Food Production	1	6	3
BHM 230[2]	Front Office Operations Mgmt.	4	0	4
Math/Science Elective		4	0	4
BUS 248	Human Resource Management	3	0	3
		14	**6**	**17**
Spring Semester				
BHM 270[2]	Hospitality Managerial Accounting	3	0	3
BHM 297[3]	Hotel/Restaurant Internship II	3	0	3
ECO 110w	Microeconomics	3	0	3
Social Science Elective		3	0	3
ENG	Advisor approved ENG elective	3	0	3
— —[4]	Math/Science Elective	4	0	4
		19	**0**	**19**

Total Credits: 67-68

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* or ENG 111, based on placement test.

[2] Take these courses in the semester (fall or spring) indicated. They are not offered in all semesters.

[3] Internships may be taken and/or completed during the summer.

[4] CST 105 or 158, BUS 181, or three approved BIT 1.0 credit modules.

Human Services

Associate in Applied Science[1]

Major changes in society have resulted in a need for human service professionals. Advancing technology, an aging population, economic factors, significant changes in the character and structure of the family, and other social trends contribute to this need. Human Services is a challenging career field that provides the opportunity for personal satisfaction through helping others.

The Human Services Program is designed for students interested in transferring to four-year institutions to earn a baccalaureate degree in the area of human services, counseling, or social work, and for students preparing for careers as paraprofessionals in educational and human services agencies upon completion of the Associate in Science degree. The program will also be useful for students currently employed in paraprofessional positions within human service agencies interested in continuing education.

The internship segment of the curriculum is an integral part of the student's learning process as it gives the student an opportunity to experience human services work and apply basic theoretical knowledge and helping skills covered in courses. Internships are available in a wide variety of health, human service, and school settings.

FIRST YEAR	HOURS/WEEK		CREDITS/SEMESTER
Fall Semester	Class	Lab	
ENG 110 College Writing I	3	0	3
HIS 115 Modern Global History	3	0	3
PSY 110 General Psychology	3	0	3
SOC 110 Intro. to Sociology	3	0	3
Laboratory Science (BIO 131 recommended)	3	2	4
	15	**2**	**16**
Spring Semester			
ENG 111 or LIT Elective	3	0	3
MAT Elective	3 (4)	0	3 (4)
Humanities Elective	3	0	3
PED Phys. Ed. Elective	0	2	1
Laboratory Science (BIO 131 recommended)	3	2	4
— — Approved Elective	3	0	3
	15 (16)	**2**	**17 (18)**
SECOND YEAR			
Fall Semester			
MAT ___ Elective	3	0	3
PSY 214 Abnormal Psychology	3	0	3
PSY 217 Counseling and Interviewing	3	0	3
PSY 223 Intelligence and Mental Retardation	3	0	3
PSY 227 Behavior Modification	3	0	3
	15	**0**	**15**
Spring Semester			
SOS 111 Public Policy	3	0	3
OR			
POS 201 American Government	3	0	3
SOC 250 Introduction to Social Work	3	0	3
HMS 250 Human Service Organizations	3	0	3
HMS 290[2] Human Service Field Experience	1	6	4
ENG 220 Communicating About Ideas and Values	3	0	3
	15	**6**	**16**

GRADUATION REQUIREMENTS: 64 CREDITS

Program supervised by:

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See also:
Chemical Dependency Counseling pg. 49

[1] A Human Services certificate is available to students who complete a predetermined selection of courses on this page. Please contact the program coordinator, above, for more information.

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w - Students must take two Writing Emphasis ("W") courses after ENG 110 and before ENG 220.

[2] Registration predicated on number of internships available each Spring semester.

Program supervised by:

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Human Services: Sequence in Gerontology

Associate in Science

The Gerontology sequence of the Human Services degree program will provide students with specialized knowledge of the aging process and gerontolgical issues that will help them understand and serve older adults. It is designed especially for those who are interested in focusing on older adults in their work or future career. Each student is required to do an internship which provides the opportunity to apply what they have learned to a work experience.

Selection of this sequence prepares students for careers in occupations that involve adults as they age. Non-profit, county, and state agencies, social services related to health care, nursing homes, retirement communities, and adult day care are all possible locations where students may work. The program is excellent preparation for transfer to a baccalaureate degree program in gerontology, human services, social work, counseling, or public health.

FIRST YEAR			HOURS/WEEK		CREDITS/SEMESTER
Fall Semester			Class	Lab	
ENG	110	College Writing I or ENG 111 College Writing II	3	0	3
PSY	110	General Psychology	3	0	3
BIO	131	Human Biology I	3	2	4
SOC	110	Intro. to Sociology	3	0	3
HMS	146	Intro. to Gerontology	3	0	3
			15	**2**	**16**
Spring Semester					
PSY	210	Human Development	3	0	3
PSY	214	Abnormal Psychology	3	0	3
BIO	131	Human Biology II	3	2	4
PSY	217	Counseling and Interviewing	3	0	3
ANT	111	Cultural Anthropology	3	0	3
			15	**2**	**16**

SECOND YEAR					
Fall Semester					
HMS	147	Eldercare Internship and Seminar	3	4	3
HMS	240	Perspectives on Death and Dying	3	0	3
SOS	111	Public Policy	3	0	3
SOS	250	Intro. to Social Work	3	0	3
Fine Arts		Elective	3	0	3
PED	150	Personal Nutrition	0	2	1
			15	**6**	**16**
Spring Semester					
MAT		Elective	3	0	3
PSY	245	Social Psychology	3	0	3
HMS	260	Special Topics on Aging	3	0	3
ENG	220	Communicating About Ideas and Values	3	0	3
PHI	201	Ethics	3	0	3
			15	**0**	**15**

GRADUATION REQUIREMENTS: 63 CREDITS

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w - Students must take two Writing Emphasis ("W") courses after ENG 110 and before ENG 220.

Industrial Technology

Associate in Applied Science*

The Industrial Technology curriculum provides an educational opportunity for those students who desire an associate degree in a technical area with a non-calculus mathematics approach. The curriculum provides a general technology program which allows students a choice of course selections in several technical specialties. Designed for the part-time degree candidate, individualized program design may be developed by an appropriate advisor, to meet the needs of a student, or by an advisor with a corporate sponsor.

A minimum of 60 semester hours is required for the A.A.S. degree. A Certificate of Industrial Technology may be granted upon completion of 30 approved credits. Individualized programs which vary from the suggested sequences must be approved by the Dean of Applied Sciences or the appropriate academic advisor.

***Industrial Technology certificate programs are available in Civil/Construction/CAD, Industrial Maintenance, Mechanical/CAD and Mechanical/CADCAM. See page 75.**

Suggested Core Courses	**Credits**
MAT 124 or MAT 125 Statistics	3
MAT 150 College Technical Mathematics	4
CST 106 Computers in Technology	3
ENG 110 College Writing I	3
ENG 150 Technical Writing	3
SOS 120 Science, Technology and Democratic Society	3
Social Science Elective Approval by Advisor	3
PHY 161 and 162 or CHM 145 and 146	8
Total	**30**

The additional 30 credits of approved coursework required for the AAS degree may be taken in the suggested sequences below:

Chemistry Sequence

Courses	**Credits**
PHY 161 or CHM 145 Physics I or Chemistry I	4
PHY 162 or CHM 146 Physics II or Chemistry II	4
CHM 291 Organic Chemistry I	3
CHM 292 Organic Chemistry II	3
CHM 293 Analytical - Instrumental Chemistry I	3
CHM 294 Analytical - Instrumental Chemistry II	3
Approved Technical Electives	10
AAS Industrial Technology Awarded	**60**

Program supervised by:

Brendan Flynn
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Civil Sequence

Courses	**Credits**
CIV 113 Engineering Drawing I w/CAD	2
CIV 114 Civil Drafting w/CAD	2
CIV 119 Architectural Drafting w/CAD	2
CIV 124 Mechanics	3
CIV 136 Construction Methods and Materials	3
CIV 217 Materials Testing	3
CIV 219 Strength of Materials	4
Approved Technical electives	11
AAS Industrial Technology Awarded	**60**

Program supervised by:

Kelli Ligeikis, P.E.
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Telephone: 607 778-5010
E-mail: ligeikis_k@sunybroome.edu

Computer Sequence

Courses	**Credits**
CST 117 Language Independent Design Tools	2
CST 133 Structured Programming in C	4
CST 150 C++ Programming with Objects	3
CST 208 Intro. to Networking	3
CST 170 Digital Logic	3
CST 200 Systems Analysis I	3
CST 202 Data Structures w/C++	3
CST 220 Microprocessors and Assembly Language	3
Approved Electives	6
AAS Industrial Technology Awarded	**60**

Program supervised by:

William Murray
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Electrical Sequence

Program supervised by:
Alan Dixon
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E-mail: dixon_a@sunybroome.edu

Courses	Credits
EET 125 Circuits I	3
EET 126 Circuits II	3
MET 141 Drawing	2
EET 235 Electrical and Electronics Drawing	2
EET 245 Energy Conversions and Control Systems	4
EET 255 Electronics I	4
EET 256 Electronics II	4
EET 257 Electronics III	4
EET 267 Digital Electronics and Microprocessors	4
AAS Industrial Technology Awarded	**60**

Electro/Mechanical Sequence

Program supervised by:
Kelli Ligeikis, P.E.
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Courses	Credits
EET 122 Electrical Circuits	4
EET 149 Control Systems	4
EET 151 Electronics	4
EET 168 Digital Electronics	4
EET 189 Surface Mount Technology	4
MET 127 Manufacturing Processes I	4
MET 128 Manufacturing Processes II	4
Approved Elective	2
AAS Industrial Technology Awarded	**60**

Manufacturing Sequence

Program supervised by:
John Petrewski
Office: Mechanical Building, Room 117
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E-mail: petrewski_j@sunybroome.edu

Courses	Credits
MET 112 Metrology	3
MET 121 Manufacturing Processes I	2
MET 122 Manufacturing Processes II	3
MET 220 Programming CNC Machine Tools	3
MET 223 Computer Integrated Machining	3
Approved Technical Electives	16
AAS Industrial Technology Awarded	**60**

Mechanical Sequence

Program supervised by:
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Courses	Credits
MET 121 Manufacturing Processes I	2
MET 134 Statics	3
MET 141 Mechanical Drawing I	2
MET 235 Strength of Materials	3
MET 253 Engineering Materials	3
MET 263 Engineering Statistics and Quality Control	2
Approved Technical Electives	15
AAS Industrial Technology Awarded	**60**

Production Management Sequence

Program supervised by:
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Courses	Credits
MET 285 Time, Motion, and Wage Study	3
MET 286 Production Control	3
MET 287 Production Layout and Materials Handling	3
BUS 245 Management: A Behavioral Approach	3
BUS 110 Introduction to Business	3
Approved Technical Electives	15
AAS Industrial Technology Awarded	**60**

Industrial Technology

Preapproved Certificate Programs

A student or corporation interested in a certificate in Industrial Technology can complete up to 30 approved credits in an Industrial Technology-Associate in Applied Sciences degree program. In special circumstances, students and designated advisors can custom design Industrial Technology certificate programs to meet individual needs. Another option is to select one of the following preapproved certificate programs.

Civil/Construction/CAD

Courses	Credits
MAT 150 College Technical Mathematics	4
CST 106 Computers in Technology	3
CIV 113 Engineering Drawing I w/CAD	2
CIV 114 Civil Drafting w/CAD	2
CIV 136 Construction Methods & Management	3
CIV 119 Architectural Drafting w/CAD	2
CIV 231 Estimating and Construction Planning	2
CIV 238 Arch. Design & Bldg. Materials w/CAD	3
CIV 217 Materials Testing	3
Technical Electives	6
Total	30

Program supervised by:

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Industrial Maintenance

Courses	Credits
MAT 150 College Technical Mathematics	4
CST 106 Computers in Technology	3
MET 113 Engineering Drawing I w/CAD	2
MET 118 Basic Industrial Safety and First Aid	3
MET 121 Manufacturing Processes I	2
MET 222 Hydraulics and Pneumatics	3
MET 224 Control Systems	3
MET 246 Refrigeration and Air Conditioning	3
EET 111 Electrical Construction Lab I	2
EET 181 Installation and Maintenance/Elec. Motors	2
Technical Electives	3
Total	30

Program supervised by:

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E-mail: petrewski_j@sunybroome.edu

Mechanical/CAD

Courses	Credits
MAT 150 College Technical Mathematics	4
CST 106 Computers in Technology	3
MET 112 Metrology	3
MET 113 Engineering Drawing I w/CAD	2
MET 116 Engineering Drawing II w/CAD	3
MET 121 Manufacturing Processes I	2
MET 122 Manufacturing Processes II	3
MET 211 Basic Mechanical CAD	2
MET 263 Engineering Statistics & Quality Control	2
Technical Electives	6
Total	30

Program supervised by:

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E-mail: petrewski_j@sunybroome.edu

Mechanical/CADCAM

Courses	Credits
MAT 150 College Technical Mathematics	4
CST 106 Computers in Technology	3
MET 112 Metrology	3
MET 113 Engineering Drawing I w/CAD	2
MET 116 Engineering Drawing II w/CAD	2
MET 121 Manufacturing Processes I	2
MET 122 Manufacturing Processes II	3
MET 211 Basic Mechanical CAD	2
MET 223 Computer Integrated Machining	3
MET 220 Programming CNC Machine Tools	3
Technical Electives	3
Total	30

Program supervised by:

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Mary Woestman
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Curriculum Advisory Council:
Quality Assurance

FRAN ANDERSON / Our Lady of Lourdes Hospital
OWEN CHRISTOFFERSON / HADCO Corporation
KEN HULL / United Health Services
ARTHUR E. JAMISON / A.E. Jamison & Associates, Consultants
BOB LERNER / IBM
RALPH SIMON / Lockheed Martin
WILLIAM VICK / Universal Instruments Corp.

Industrial Technology: Quality Assurance

Associate in Applied Science

The Quality Assurance concentration of the Industrial Technology program at Broome Community College is a planned sequence of college level courses leading to a Certificate or an Associate in Applied Science degree. Quality Assurance emphasizes both the theory and the application of established methods of quality in areas such as engineering, health care, education, business management, etc. The program prepares the student for immediate employment or for possible transfer to an upper division school upon graduation.

The program may require more than two years to complete, depending on a student's academic background. The department will tailor a program assuring each student the opportunity to earn either a certificate or an AAS degree in Industrial Technology with a Quality Assurance concentration. Qualified AAS degree candidates will have the opportunity to complete an internship with a local employer.

SUGGESTED SEQUENCE: Students may select courses from any of the categories, but it is suggested that these sequences be followed to ensure that the proper prerequisites have been completed.

Introductory Courses	**Credits**
MAT 136 Intermediate Algebra and Trigonometry	4
MAT 156 Algebra and Trigonometry for Calculus	4
MAT 125 Statistics I w/Computers	3
MET 113 Engineering Drawing I	2
ENG 110 College Writing I	3

Additional Courses for Certificate	
SQC 100,200 Orientation	0
CST 105 Understanding Computers	3
MET 121 Manufacturing Processes I	2
SQC 111 Acceptance Sampling	3
SQC 112 Metrology	3
SQC 113 Statistical Process Control	3
SQC 244 Reliability and Life Testing	3
Total	**33**

Remaining Courses for Degree	
MAT 224 Statistics II	3
PHY 161 Physics I	4
CHM 120 Fundamentals of Chemistry	4
Approved Elective	3
ENG 150 Technical Writing	3
Approved Social Science Electives	6
SQC 220 Senior Practicum	3
MAT 245 Introduction to Design of Experiments	3
EET 183 Applied Electricity	3
Total	**32**

AAS Industrial Technology
Quality Assurance Emphasis
Minimum Credits **65**

Liberal Arts and Sciences

Associate in Arts

Liberal Arts offers traditional university parallel programs — the Associate in Art and the Associate in Science — to students aspiring to baccalaureate degree study. Graduates transfer to institutions throughout the SUNY system and to public and private colleges in New York and other states.

A.A. or A.S. degree recipients are guaranteed transfer to some four-year college or university of The State University of New York (SUNY). Students should learn as much as they can about program requirements at transfer colleges.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

	Credits
English	9
ENG 110 and 111, Written Expression I and II, and ENG 220 Communicating About Ideas and Values	
History	6
HIS 115 Modern Global History plus one other history (HIS) course.	
Foreign Language	0-8
As advised, per high school preparation. Exemption for 3 years of high school study in one language or two years each of two languages, all with class average minimum of 75. Others must complete BCC language study through the Beginning II.	
Mathematics or elective (as advised)	0-6
If High School Course III completed, BCC requirement is one course. All others take a minimum of two credit-bearing courses. Some students will require remedial coursework.	
Approved sequences in Biology, Chemistry, Physics and Physical Sciences.	
Philosophy	3
Physical Education	1
No more than 2 credits can be used to fulfill degree requirements. At least 1 credit from PED 118, 119, 127, 135, 137, 143, 146, 147, 148, 155, 173.	
Literature	3
Art, Music, Theatre	3
Civic Education (Social Science)	6
At least 3 credits must be from the following courses: CTP 275, ECO 110/111, HIS 130/131, SOC 111, SOS 111/120, POS 201/204.	
Behavioral / Social Science	3
Courses from Anthropology (ANT), Geography (GEO), Economics (ECO), Political Science (POS), Psychology (PSY), Sociology (SOC), and Social Science (SOS).	
Electives	10-25
Selections from approved listing preceding each semester's registration.	
Total number of credits	**63 minimum**

Program supervised by:

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A Liberal Arts certificate is available to students who complete a predetermined selection of courses on this page. Please contact the program coordinator, above, for more information.

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Liberal Arts and Sciences

Associate in Science: Science Option Transfer Program*

This program is designed for students planning careers in biology, forest science, chemistry, the physical sciences, medicine, dentistry, and related fields.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR

	Credits
English	6
ENG 110 and 111, Written Expression I and II	
History	6
HIS 115 Modern Global History and any other history (HIS) course.	
Mathematics	8
MAT 181 and 182 Calculus with Analytic Geometry I and II, or if a student is not prepared for these courses, he or she may take MAT 136 Intermediate Algebra and Trigonometry and/or MAT 156 Algebra and Trigonometry for Calculus.	
2 Laboratory Science Sequences	16
BIO 111 and BIO 112 General Biology I and II and CHM 145 and CHM 146 Chemistry for those planning careers in medicine, veterinary medicine, dentistry, forest biology, marine biology, pharmacy or forest chemistry.	
Physical Education	1
A minimum of 1 credit must be taken from PED 118, 119, 127, 135, 137, 143, 144, 146, 147, 148, 173.	

SECOND YEAR

	Credits
English	3
ENG 220 Communicating About Ideas and Values	
Literature	3
LIT elective	
Social Science/Civic Education	6
Courses from the following disciplines - anthropology, economics, geography, political science, psychology, sociology, social science.	
2 Laboratory Science Sequences	16-20
PHY 161 and 162 Physics and CHM 245 and 246 Organic Chemistry, for those planning careers in medicine, veterinary medicine, dentistry, forest chemistry, forest biology, marine biology, or pharmacy.	
Philosophy or Math	3-4
A student must fulfill the mathematics requirements (above) before taking a philosophy or foreign language course. If the student wishes to take a math course more advanced than MAT 182 then he or she, with the dean's approval, may take another mathematics course.	
Total number of credits	**72 minimum**

***NOTE:** The Science option is intended for students planning academic majors or professional careers in science, chemistry, biology, biochemistry, microbiology, astronomy, geology, physics, etc. — or medicine, dentistry, veterinary medicine, and pharmacy.

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[1] General Math and Business Math cannot be used in meeting this requirement.

Liberal Arts Model Programs

By appropriate course selection in consultation with faculty advisors, students pursuing the A.A. and A.S. Liberal Arts and Science degrees may prepare for transfer to upper-division study in the subject areas listed below and on the following pages. Students should maintain close contact with their planned transfer institutions to be sure they are enrolled in appropriate courses.

All students must meet General Education requirements.

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American Studies Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
HIS 115	3
HIS 130	3
Foreign Language	3-6
MAT	3-6
POS 201	3
Laboratory Science	8
Physical Ed.	1
Total	**30-33**

Second Year

Courses	Credits
LIT 210 or LIT 211	3
HIS 131/187	6
ENG 220	3
Social Science/Civic Ed.	6
Fine/Performing Arts	3
Philosophy	3
Electives	6-9
Total	**31-34**

Pre-Architecture Apply to Individual Studies AS

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
PSY 110	3
PHY 161/162	8
CIV 115	2
MAT 181	4
ECO 110	3
CIV 119	2
ART 105/106	6
Physical Education	1
Total	**35**

Second Year

Courses	Credits
LIT	3
ART 108/109	6
Social Science/Civic Ed.	3
ART 115	3
CIV 105	2
CIV 205	3
CIV 238	3
Electives	9
PHI 111/112, CIV, CST, ART, INT	
Total	**32**

Civil and Public Service Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
HIS 115 HIS Elective	6
HIS 131[2]	6
Philosophy	3-6
MAT	3-6
MAT 124[2]	
Laboratory Science sequence	8
Social Science	3
POS 201[2] Intro. to American Government	3
Physical Ed.	1
Fine/Performing Arts	3
Total	**31-35**

Second Year

Courses	Credits
ENG 220	3
Philosophy	3
PHI 206[2]	
Social Science	3
POS 204, SOS 111[2]	
Foreign Language	3-6
Related electives	14-17
ECO 110, 111, PSY 110, SOC 110, 111, BUS 100, 245, 249	
Total	**29-33**

Consumer Economics and Housing[1] Apply to AA Program

(SUNY College of Human Ecology at Cornell)

First Year

Courses	Credits
ENG 110 and 111	6
MAT 145 and 146[3]	6
HIS 115 and HIS elective	6
Laboratory Science	8
BIO 131/132 or CHM 145/146 or PHY 161/162	
Philosophy	3
Physical Education	1
Fine/Performing Arts	3
Total	**33**

Second Year

Courses	Credits
LIT	3
ECO 110 and 111	6
CST 105	3
PED	1
POS 201	3
BUS 141	3
PSY 110	3
ENG 220	3
SOC 110	3
Free Electives	3
Total	**31**

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[1] These are special transfer agreement programs with designated colleges and universities. Students study at BCC for one or two years in Liberal Arts programs and their remaining years at senior colleges in Bachelor's Degree Studies. For information on transfers, see pages 29-31.

[2] These courses are "strongly recommended"

[3] These courses are "recommended"

Program supervised by:

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Criminal Justice - Generalist

Individual Studies Program administered through the Criminal Justice Department.

The Criminal Justice - Generalist program allows the student to create a criminal justice degree program to meet specific needs while attaining an Associate in Applied Science Degree through the Individual Studies Program. Using this program, students take the same core courses required of all criminal justice students, but also take specialized courses to prepare the student for specialized areas in the criminal justice field. For example, students may focus on forensics by taking a series of laboratory courses and mathematics, or focus on administration by including business courses, or behavioral science concentration by taking a series of classes from the psychology and sociology course offerings.

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
PSY 110	3
SOC 110	3
MAT 113	3
HIS 115	3
CRJ 101	3
CRJ 115	3
Specialized Courses	6
Physical Education	1
Total	**31**

Second Year

Courses	Credits
ENG 220	3
PSY/SOC Elective	3
POS 201/204/SOC 111	3
SPK 110	3
Science	3-4
CRJ 125	3
CRJ 212W	3
Specialized Courses	9
Total	**30-31**

Criminal Justice - Transfer Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
HIS 115	3
MAT	6-8
MAT 124[2]	3
LIT	3
POS 201	3
Social Science	6
PSY 110 and SOC 110 **or** 111	3
Criminal Justice CRJ 101[2]	6
Physical Ed.	1
Total	**31-34**

Second Year

Courses	Credits
CHM 120 and 121[2] Laboratory Science sequence	8
Philosophy	3
Fine/Performing Arts	3
Criminal Justice	9
ENG 220	3
SOC 210[2]	3
Foreign Language	3-6
Total	**30-32**

Criminal Justice - Security (Transfer)

Associate in Applied Science

This Associate in Applied Science Degree is administered through the Criminal Justice Department under the auspices of the Individual Studies Program. It is designed for full-time students desiring emlpoyment in security after two years of study. Careful planning and selection of courses is necessary to complete the program in two years and may in fact require more than two years to finish. Students completing this course of study should be prepared to enter a career ready to participate in any of the many growing security operations, including industrial security, retail security, and facility security. Individuals entering the security field may be required to undergo physical, psychological, and medical fitness screenings and may also be required to undergo a background investigation. Most courses related directly to security are taught only at night.

First Year

Courses		Credits
ENG 110	College Writing I	3
SOC 110	Introduction to Sociology	3
HIS 130	U.S. History I	3
CRJ 101	Introduction to Criminal Justice	3
CRJ 130	Introduction to Security	3
PED 118	Personal Fitness	1
ENG 111	College Writing II	3
PSY 110	General Psychology	3
MAT 113	Math Explorations I	3
CRJ 125	Criminal Law	3
CRJ 225	Security Administration	3
Total		**31**

Second Year

Courses		Credits
POS 201/204	American Government State and Local Government	3
SOS 111	Public Policy	3
— —	Psychology or Sociology Elective	3
CRJ 115	Juvenile Justice	3
CRJ 212W	Criminal Procedure and Constitutional Law	3
FRS 101	Fire Prevention and Protection	3
ENG 220	Communicating About Ideas	3
SPK 110	Effective Speaking	3
— —	Science	3-4
CRJ 230	Criminal Investigation	3
FRS	FRS Elective	3
Total		**33-34**

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[1] These are special transfer agreement programs with designated colleges and universities. Students study at BCC for one or two years in Liberal Arts programs and their remaining years at senior colleges in Bachelor's Degree Studies. For information on transfers, see pages 29-31.

[2] These courses are "strongly recommended"

[3] These courses are "recommended"

Cytotechnology[1] Apply to AA Program

(For transfer to the SUNY Health Science Center at Syracuse, "B" grades in science courses required)

Suggested Course Selections:

FIRST YEAR

Courses	Credits
ENG 110 and 111	6
BIO 111 and 112	8
CHM 145 and 146	8
LIT	3
BIO 150	4
MAT 124	3
HIS 115	3
Total	**35**

SECOND YEAR

Courses	Credits
BIO 131 and 132	8
Philosophy	3
Social Science/Civic Ed.	6
Physical Ed.	1
Foreign Language	3-6
ENG 220	3
Fine/Performing Arts	3
Total	**29-30**

Program supervised by:

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English and English Education Apply to AA Program

Suggested Course Selections:

FIRST YEAR

Courses	Credits
ENG 110	3
HIS 115	3
Foreign Language, Literature, Culture	3-4
Mathematics	3-4
Lab Science	4
ENG 110	3
History	3
Foreign Language, Literature, Culture	3-4
Mathematics	3-4
Lab Science	4
Physical Fitness	1

SECOND YEAR

Courses	Credits
American or British Lit Sequence	6
Civic Education	3
Behavioral/Social Science	3
ENG 220	3
SPK 110	3
Recommended Electives:	
ENG 175, ENG 210, ENG 212, or an additional W Course	3
Literature	3
Humanities	3
SOS 120	3

Students are encouraged to take courses ranged broadly across the disciplines.

CTP 275 Internship offers students the opportunity to work in an English classroom; students may also gain teaching experience by serving as a Supplemental Instruction leader.

PSY 110 General Psychology is recommended.

Environment and Forest Biology[1]

(SUNY College of Environmental Science and Forestry, Syracuse)

FIRST YEAR

Courses	Credits
ENG 110 and 111	6
CHM 145 and 146[3]	8
BIO 111 and 112	8
MAT 181	4
HIS 115 and HIS elective	6
Physical Ed.	1
Total	**33**

SECOND YEAR

Courses	Credits
LIT	3
Philosophy	3
CHM 245 and 246	10
Social Science/Civic Ed.	6
PHY 161 and 162	8
ENG 220	3
Total	**33**

Forest Chemistry[1]

(SUNY College of Environmental Science and Forestry, Syracuse)

FIRST YEAR

Courses	Credits
ENG 110 and 111[3]	6
HIS 115 and HIS elective[1]	6
BIO 111 and 112	8
CHM 145 and 146	8
MAT 181	4
Philosophy elective or MAT 182	3
Total	**35**

SECOND YEAR

Courses	Credits
LIT	3
CHM 245, 246	10
PHY 161, 162	8
ECO 110	3
Fine/Performing Arts	3
Physical Education	1
ENG 220	3
Total	**31**

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[1] These are special transfer agreement programs with designated colleges and universities. Students study at BCC for one or two years in Liberal Arts programs and their remaining years at senior colleges in Bachelor's Degree Studies. For information on transfers, see pages 29-31.

[2] These courses are "strongly recommended"

[3] These courses are "recommended"

Program supervised by:

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Forest Resources Management Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111[2]	6
HIS 115 and HIS elective	6
MAT 181	4
BIO 111 and 112[1] Laboratory Science seq.	8
Physical Ed.	1
LIT	3
CHM 145 and 146[1]	8
Total	**34**

Second Year

Courses	Credits
Philosophy	3
ENG 220	3
Social Science/Civic Ed. ECO 110 POS 201[2]	6
PHY 161/162[2] Laboratory Science	8
CST 105	3
Specific electives	9
Total	**32**

Forest Technology Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 150	6
MAT 136 and 156	8
ECO 110 or 111	3
BIO 111 and 112	8
Electives	6
Total	**30-31**

Second Year

(BCC students transfer to Wanakena)

Global Studies Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
HIS 115	3
GEO 120	3
Foreign Language	6
PHI 104	3
MAT	3-6
Laboratory Science	8
Physical Education	1
Total	**33**

Second Year

Courses	Credits
ENG 220	3
LIT	3
Fine/Performing Arts	3
HIS elective	3
SOS 116	3
ECO 111	3
Foreign Language	6
Electives	6
Total	**31**

Human Development and Family Studies[1]

(SUNY College of Human Ecology at Cornell)

First Year

Courses	Credits
ENG 110 and 111	6
HIS 115 and HIS elective	6
MAT 124	3
PSY 110	3
BIO 131 and 132[3]	8
Philosophy	3
Physical Eduation	1
LIT	3
Total	**33**

Second Year

Courses	Credits
MAT elective	3
PSY 211 and PSY elective	6
Social Science/Civic Ed.	3
FREE electives	12
Physical Education	1
ENG 220	3
Fine/Performing Arts	3
Total	**31**

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[1] These are special transfer agreement programs with designated colleges and universities. Students study at BCC for one or two years in Liberal Arts programs and their remaining years at senior colleges in Bachelor's Degree Studies. For information on transfers, see pages 29-31.

[2] These courses are "strongly recommended"

[3] These courses are "recommended"

International Relations Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
Foreign Language	6
MAT	3-6
HIS 115 and HIS elective	6
Laboratory Science sequence	8
ANT 111	3
PED	1
Total	**33**

Second Year

Courses	Credits
Foreign Language	6
POS 203/SOS 111	3
LIT	3
Philosophy elective	3
Fine/Performing Arts	3
Free electives	10-12
ENG 220	3
Total	**31**

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Landscape Architecture Apply to Individual Studies AS

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
HIS 115 and HIS elective	6
MAT	8
MAT 136, 156[2]	
MAT 181, 182[3]	
Laboratory Science sequence	8
BIO 111, 112[2]	
Physical Ed.	1
ART elective: 105, 108, 115	3
Total	**32**

Second Year

Courses	Credits
LIT	3
CIV 115, CIV 119, or 159	4
Social Science/Civic Ed.	6
ENG 220	3
Philosophy	3
Electives	12-15
Related courses	6
ART 106, 109[2]	
CIV 111, 115[1]	
CST 105[2]	
CIV 105	
PHS 116[2]	
PHY 161[2]	
Total	**32-34**

Pre-Law Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
HIS 115	3
MAT	0-6
Laboratory Science sequence	8
Foreign Language	3-6
Philosophy elective	
PHI 200 or 201	3
PED	1
ART, MUS, THR	3
Total	**33**

Second Year

Courses	Credits
LIT	3
PSY 110	3
POS 201 or 204	16-18
Electives POS 201, 204 ECO 110, 111, 104 SOC 110, 111, SOS 111 HIS 130, 131 PSY 110 BUS 100	
ENG 220	3
HIS elective	3
Total	**31**

Math and Math Education Apply to AA Program

Suggested Course Selections:

First Year

Courses	Credits
ENG 110 and 111	6
HIS 115 and elective	6
MAT 181/182	8
MAT 124/224	6
LIT	3
PHI 202	3
PED	1
Total	**33**

Second Year

Courses	Credits
MAT 281	4
MAT 264	4
PHY 161, 162[3] Laboratory Science	8
Fine/Performing Arts	3
MAT 266	3
MAT 250 or 282	4
Social Science/Civic Ed.	6
ENG 220	3
Total	**35**

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[1] **These are special transfer agreement programs with designated colleges and universities. Students study at BCC for one or two years in Liberal Arts programs and their remaining years at senior colleges in Bachelor's Degree Studies. For information on transfers, see pages 29-31.**

[2] These courses are "strongly recommended"

[3] These courses are "recommended"

Program supervised by:

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Medical Technology Apply to Individual Studies AS Program

Suggested Course Selections:

FIRST YEAR

Courses	Credits
ENG 110 and 111	6
BIO 111 and 112	8
CHM 145 and 146	8
MAT 156	4
HIS 115	3
LIT elective	3
Philosophy	3
Total	**35**

SECOND YEAR

Courses	Credits
BIO 131	4
BIO 150	4
CHM 245	5
Social Science/Civic Ed.	6
HIS	3
ENG 220	3
CHM 224	4
Fine/Performing Arts	3
Physical Ed. electives	1
Total	**33**

Nursing[1]

(Transfer to Binghamton University's Decker School of Nursing for a B.S. degree)

FIRST YEAR

Courses	Credits
ENG 110 and 111	6
Social Science/Civic Ed.	6
MAT 124	3
CHM 141 and 142	8
BIO 131 and 132	8
PSY 110	3
Total	**34**

SECOND YEAR

Courses	Credits
LIT	3
BIO 150	4
PSY 210	3
Social Science	6
Philosophy	3
Elective	11
PED	1
ENG 220	3
Fine/Performing Arts	3
Total	**34**

Pre-Pharmacy Apply to General Studies AS Program

(Compatible with Pharmacy at University at Buffalo)

Suggested Course Selections:

FIRST YEAR

Courses	Credits
ENG 110 and 111	6
HIS 115	3
BIO 111/112	8
MAT 181/182	8
CHM 145.146	8
PED	1
Total	**34**

SECOND YEAR

Courses	Credits
LIT	3
ENG 220	3
Social Science/Civic Ed.	6
CHM 245/246	10
PHY 161/162	8
PHI	3
Total	**33**

Physical Education/Recreation Apply to AA Program

Suggested Course Selections:

FIRST YEAR

Courses	Credits
ENG 110 and 111	6
HIS 115 and HIS elective	6
MAT	0-6
Foreign Language	3-6
PED 118 or 119	1
Related electives	9
PSY 110[1]	
ART, MUS, THR, SPK[2]	
Total	**32**

SECOND YEAR

Courses	Credits
LIT	3
Social Science/Civic Ed.	6
SOC 111/SOS 111[2]	
PSY 210 or 211[2]	
Laboratory Science sequence	8
BIO 111, 112, or 131, 132[3]	
Related electives	9
Philosophy elective	3
ENG 220	3
Fine/Performing Arts electives	3-6
Total	**32**

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[1] **These are special transfer agreement programs with designated colleges and universities. Students study at BCC for one or two years in Liberal Arts programs and their remaining years at senior colleges in Bachelor's Degree Studies. For information on transfers, see pages 29-31.**

[2] These courses are "strongly recommended"

[3] These courses are "recommended"

Physical Therapy Apply to Individual Studies AS Program

(Required Courses for admission to SUNY Health Science Center, Syracuse. Program is highly competitive; therefore high grades are necessary. Transfer to other colleges may require some course alterations.)

FIRST YEAR

Courses	Credits
BIO 111-112	8
BIO 131-132	8
BUS 245 or 246	
CHM 145-146	8
Civic Ed. SS	3
ENG 110	3
ENG 150	3
ENG 220	3
ENG elective	3
HIS	6
LIT	6

SECOND YEAR

Courses	Credits
MAT 124 or 125	3
MAT 156	3
(MAT 181 preferred)	4
PED	1
PHI 201	3
PHY 161-162	8
PSY 110	3
PSY 210 or 211	3
PSY elective	3
SPK 110	3

Additionally all applicants must have prior volunteer or work experience in a physical therapy setting.

Psychology Apply to AA Program

Suggested Course Selections:

FIRST YEAR

Courses	Credits
ENG 110	3
ENG 111	3
HIS 115	3
PSY 110	3
SOC 110	3
Foreign Language (as advised)	0-8
Laboratory Science sequence	8
Fine/Performing Arts elective	3
PSY 210	3
Total	**29-37**

SECOND YEAR

Courses	Credits
MAT electives (as advised)	3-8
MAT 124, 136/156, 181[1]	
PSY 214	3
PSY 245	3
LIT elective	3
PHI elective	3
Civic Education elective	3
ENG 220	3
PSY electives	9
PSY 211, 217, 223, 227, 230[1]	
Total	**30-35**

Pre-Respiratory Therapy[1,7]

(Transfer to SUNY Health Center, Syracuse)

FIRST YEAR

Courses	Credits
BIO 111-112[4]	8
CHM 145-146[4]	8
ENG 110[6]	3
LIT 200[6]	3
MAT 156[1]	3
PHY 161-162[5]	8
PSY 110[6]	3
SOC 110[6]	3

Secondary Education (Biology) Apply to AS Program

Suggested Course Selections:

FIRST YEAR

Courses	Credits
ENG 110 and 111	6
BIO 111 and 112 or 115 (Any 2)	8
CHM 145 and 146	8
MAT 124 and 181	7
PSY 110	3
HIS 115	3
Total	**35**

SECOND YEAR

Courses	Credits
ENG 220	3
BIO 131/132	8
CHM 245 and 246	10
BIO 150	4
PHI 203	3
PSY 210	3
LIT elective	3
Total	**34**

Program supervised by:

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Freshman year at BCC, Sophomore year at:

DELHI A&T

General Agriculture

Animal Husbandry — Dairy

WANAKENA

See Forest Technology Model Program

CANTON A&T

Mortuary Science

Details in Titchener Hall, Room 121

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[1] These are special transfer agreement programs with designated colleges and universities. Students study at BCC for one or two years in Liberal Arts programs and their remaining years at senior colleges in Bachelor's Degree Studies. For information on transfers, see pages 29-31.

[2] These courses are "strongly recommended"

[3] These courses are "recommended"

[4] Required prior to acceptance into program.

[5] Recommended prior to acceptance.

[6] May be deferred until after transfer.

[7] Also required prior to transfer is volunteer work, actual work experience or multiple visits at a respiratory care department.

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Freshman year at BCC,
Sophomore year at:

DELHI A&T

General Agriculture

Animal Husbandry — Dairy

WANAKENA

See Forest Technology
Model Program

CANTON A&T

Mortuary Science

Details in Titchener Hall,
Room 121

Social Work[1]

(SUNY College of Human Ecology at Cornell)

FIRST YEAR

Courses	**Credits**
ENG 110 and 111	6
HIS 115 and HIS elective[2]	6
Laboratory Science sequence	8
BIO 131 and 132[2]	
MAT (MAT 124)	3
PSY 110 and SOC 110	6
LIT	3
Physical Education	1
Total	**33**

SECOND YEAR

Courses	**Credits**
Philosophy	3
CST 105 or 115	3
ENG 220	3
PSY 210, 214	6
SOC 230	3
Elective	3
ECO 110/111, SOS 111/SOC 111	3
Fine/Performing Arts	3
Total	**30**

Special Education **Apply to General Studies AS Program**

(Elementary and Secondary — Suggested Course Selections)

FIRST YEAR

Courses	**Credits**
ENG 110	3
ENG 111	3
HIS 115	3
ENG 111	3
MAT	6
MAT 119, 120, 113, 114[2]	
Laboratory Science sequence	8
BIO 131, 132[2]	
Social Science	3
PSY 110[2]	
Foreign Language	3-6
LIT	3
Total	**35**

SECOND YEAR

Courses	**Credits**
PHI elective	3
ENG220	3
HIS	3
Social Science/Civic Ed.	3
SOC 111/SOS 111	
Physical Ed.	1
Related electives	18
PSY electives[1]	
MUS, THR, ART[1]	
HUS 120[1]	
Total	**32**

Women's Studies **Apply to AA Program**

Suggested Course Selections:

FIRST YEAR

Courses	**Credits**
ENG 110 and 111	6
HIS 115	3
LIT 250	3
Laboratory Science sequence	8
MAT elective	6
Foreign Language	6
PED	1
Total	**30-33**

SECOND YEAR

Courses	**Credits**
ENG 220	3
HIS 183	3
PSY 110	3
PSY 230	3
Civic Ed.	3
BIO 120	3
Philosophy	3
Fine/Performing Arts	3
Electives	6-9
Total	**31-33**

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[1] These are special transfer agreement programs with designated colleges and universities. Students study at BCC for one or two years in Liberal Arts programs and their remaining years at senior colleges in Bachelor's Degree Studies. For information on transfers, see pages 29-31.

[2] These courses are "strongly recommended"

[3] These courses are "recommended"

Liberal Arts: General Studies

Associate in Science Transfer Programs*

The aim of the General Studies Program is to provide students with a broader range of curricular choices so that, under the guidance of faculty advisers, they can align their Associate degrees more closely with programs at senior institutions. The intent is to allow students with clear academic and/or career goals to structure their Associate degree programs so as to transfer as juniors to senior colleges, needing only four additional semesters to complete the baccalaureate degree. Required general education courses totaling 30-34 credits are required of General Studies (AS) students, leaving a like number of elective credits.

Acting Sequence

(Suggested Course Selections)

FIRST YEAR

Courses	Credits
THR 111	3
THR 112	3
THR 114	3
THR 246	3
THR 266	3
PED (THR 165)	1
ENG 110	3
HIS 115	3
Science/Math	6-8
Civic Ed.	3
Total	**31-33**

SECOND YEAR

Courses	Credits
THR 218	3
THR 231	3
THR 256	3
THR 276	3
THR elective	3
ENG 220	3
LIT elective	3
Foreign Lang (As Advised) or electives	0-8
Behav/Social Sci	3
Total	**24-32**

Program supervised by:

Angelo Zuccolo
Office: Student Center, Little Theatre
Telephone: 607 778-5191
E-mail: zuccolo_a@sunybroome.edu

Art and Design: Art History Sequence*

(Suggested Course Selections)

FIRST YEAR

Courses	Credits
ENG 110	3
ENG 111 or Lit Elective	3
HIS 115	3
ART 105, 106, 115	9
ART History Electives	9
(choose from ART 102, 103, 104, 108, 109, 110, 111)	
ANT 110 or 111 or PSY 110	3
Physical Education	1
Total	**31**

SECOND YEAR

Courses	Credits
Foreign Language	8
(3 years high school = exempt)	
Math	3/4
Lab Science	4
Art History Electives	6
(choose from ART 102, 103, 104, 108, 109, 110, 111)	
Art & Design Studio Electives	6
Social Science/Civic Ed	3
ENG 220	3
Total	**33-34**

Program supervised by:

Anne Boyer Cotten
Office: Arts Annex, Room 103
Telephone: 607 778-5315

Art and Design: Studio Art Sequence*

(Suggested Course Selections)

FIRST YEAR

Courses	Credits
ENG 110	3
ENG 111 or Lit Elective	3
HIS 115	3
ART 105, 106, 115	9
ANT 110 or 111 or PSY 110	3
ART 116	3
ART 217	3
ART 140	3
Art History Elective	3
Physical Education	1
Total	**34**

SECOND YEAR

Courses	Credits
Foreign Language	8
(3 years H.S. = exempt)	
Math	3/4
Laboratory Science	4
ART 215	3
ART 130	3
ART & Design Electives	3
Social Science/Civic Ed Elective	3
ENG 220	3
Total	**30-31**

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* Pending SUNY and SED Approval

NOTE: Students interested in constructing an Individual Studies Program should refer to page 90 of the catalog.

Art and Design: Interior Design / Environmental Design Sequence*

(Suggested Course Selections)

First Year

Courses	Credits
ENG 110	3
ENG 111 or LIT elective	3
HIS 115	3
Humanities elective other than ART	6-8
Physical Education	1
CIV 159	3
CIV 105	2
ART 105	3
ART 109	3
ART 150	2
INT 120	2
ART 111	3
Total	**34-36**

Second Year

Courses	Credits
ENG 220	3
Math Elective	3-4
Lab Science Elective	4
Social Science / Civic Ed Elective	3
Art History Elective	3
ART 213	2
INT 210	4
ART 115	3
ANT 110 or 111 or PSY 110	3
Total	**28-29**

Art and Design: Graphic Art Sequence*

(Suggested Course Selections)

First Year

Courses	Credits
ENG 110	3
ENG 111 or LIT elective	3
HIS 115	3
Humanities elective other than ART	6-8
Physical Education	1
ART 105, 106, 115	9
ANT 110 or 111 or PST 110	3
BIT 108 or Equivalent	1
ART 125	3
Art History Elective	3
Total	**35-37**

Second Year

Courses	Credits
ENG 220	3
Math Elective	3-4
Lab Science Elective	4
Social Science / Civic Ed Elective	3
ART 116	3
ART 140 or ART 112	3
ART 217	3
ART 225	3
ART 226	3
Total	**28-29**

Elementary Education Transfer Sequence

(Pre-Kindergarten - Grade 6)

First Year

Courses	Credits
ENG 110, 111	3
HIS 115	3
MAT 119 and 120	6
Foreign Language Sequence	6-8
Social Science/Civic Ed. Elective	3
ECE 110	3
Humanities Elective (Choose from ART, LIT, MUS, THR)	3
PED (Cardio-Vascular)	1
Total	**28-30**

Second Year

Courses	Credits
PHI Course (120 or 201 or 203 recommended)	3
Laboratory Science Sequence	8
PSY 110 and PSY 211	6
ENG 220	3
Concentration[1]	12
Total	**32**

Program supervised by:

Barbara Nilsen, Ed.D.
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E-mail: nilsen_b@sunybroome.edu

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[1] NYS requires that students seeking certification to teach Elementary school select and take a sequence of courses in an academic concentration (similar to an academic major).

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* Pending SUNY and SED Approval

NOTE: Students interested in constructing an Individual Studies Program should refer to page 90 of the catalog.

Music Industry Transfer to SUNY Oneonta

(Suggested Course Selections)

FIRST YEAR

Courses	Credits
MUS 101 Introduction to Music	3
MUS 105 Music Theory I	3
MUS 106 Music Theory II	3
MUS 108 History of Music to 1800	3
MUS 120 Piano I	1
MUS 197 Applied I	1
MUS 198 Applied II	1
MUS Ensembles	2
BUS 110 Introduction to Business	3
BUS 141 Marketing	3
HIS 115 History	3
SPK 110 Effective Speaking	3
ENG 110 English	3
MAT Mathematics	3-4
Total	**35-36**

SECOND YEAR

Courses	Credits
MUS 107 Music Theory III	3
MUS 111 19th Century Music	3
MUS 112 20th Century Music	3
MUS Ensembles	2
BUS 246 Management	3
ECO 220 Economics	3
PHI Philosophy	3
Lab Science Biology or Chemistry	4
LIT Literature	3
PED Physical Education	1
ENG 220 English	3
Total	**31**

Program supervised by:

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Music Education and Performance Sequence

(Suggested Course Selections)

FIRST YEAR

Courses	Credits
MUS 101 Introduction to Music	3
MUS 105 Music Theory I	3
MUS 106 Music Theory II	3
MUS 108 History of Music - Ren. to 1800	3
MUS 115 Ear Training I	1
MUS 116 Ear Training II	1
MUS 120 Piano Class I	1
MUS 121 Piano Class II	1
MUS 197 Applied Music I	1
MUS 198 Applied Music II	1
MUS Ensembles	2
ENG 110	3
HIS 115	3
LIT	3
Approved Elective	6
Total	**35**

SECOND YEAR

Courses	Credits
MUS 107 Theory III	3
MUS 111 19th Century Music	3
MUS 112 20th Century Music	3
MUS 117 Ear Training III	1
MUS 185 Beginning Guitar	1
MUS 194 Voice Class I	1
MUS 297 Applied Music III	1
MUS 298 Applied Music IV	1
MUS Ensembles	2
ENG 220	3
Civic Ed.	3
Lab Science	7
MAT	3-4
PED	1
Total	**30-31**

Theater Sequence

(Suggested Course Selections)

FIRST YEAR

Courses	Credits
THR 101	3
THR 109 or 110	3
THR 111	3
THR 112	3
THR 201 or 202	3
ENG 110	3
HIS 115	3
Science/Math	6-8
Civic Ed.	3
Total	**30-32**

SECOND YEAR

Courses	Credits
THR 114	3
THR 151 or 152	3
THR 231	3
THR 266	3
THR Elective	3
PED (THR 165)	1
ENG 220	3
LIT elective	3
Foreign Lang (As Advised) or electives	0-8
Behav/Social Sci	3
Total	**25-33**

Program supervised by:

Angelo Zuccolo
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E-mail: zuccolo_a@sunybroome.edu

Program supervised by:
Francis J. Short
Office: Titchener Hall
Telephone: 607 778-5087

Liberal Arts: Individual Studies

To provide opportunities for students with unusual needs or interests, Broome Community College allows selected students to structure individualized degree programs. The program requires the student to develop, with an advisor, an "area of concentration." *This area of concentration must be a cohesive program of study which the student can justify as having both educational and personal relevance.*

Completion of the Individual Studies Program can lead to an Associate in Science (AS) or Associate in Applied Science (AAS) degree, depending on the student's area of concentration. The AS degree program is designed for baccalaureate transfer, and the AAS degree for immediate employment. *Admission into the program requires the student to develop a Plan of Studies which is approved by the programming coordinator.*

This is not a program for students unsure of their goals or simply exploring several areas of study.

Associate in Science Degree[1] (60 credits)

- 30 Credits in student's Area of Concentration.
- 30 Credits in English, Humanities, Natural Sciences, Mathematics and Social Sciences distributed as follows.
  9 Credits in Humanities ENG 110, 111, and 220
  6 Credits in Social Science (3 must be designated Civic Education courses)[1]
- Mathematics (as advised) 0-6 or 8 credits
  8 Credits in Laboratory Science
  Liberal Arts Electives to make 62 credit total
  2 Credits in Physical Education one Credit minimum from PED 118, 119, 127, 135, 137, 143, 144, 146, 147, 148, 173.

Associate in Applied Science Degree[1] (60 credits)

- Minimum of 20 semester credits in Liberal Arts and Sciences to include:
  9 Credits in Humanities (ENG 110 and ENG 220 required) ENG 110, 111, and 220
  6 Credits in Social Science (3 must be in designated Civic Education courses)
  8 Credits in Natural and Physical Science, including Mathematics
- 10 Credits of Technical Electives
- 30 Credits in student's Area of Concentration

For additional information contact the Program Supervisor.

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[1] Students in both AS and AAS programs must satisfy General Education requirements: (see page 21).

NOTE: Two Writing Emphasis Courses are required after ENG 110 and before ENG 220

NOTE: Students interested in General Studies sequences in Art and Design, Elementary Education, Music and Theatre should refer to pages 87-89 of this catalog for General Studies sequences in Liberal Arts and Related Careers Programs.

Management

Associate in Science Transfer Program*

The Management program offers the student course work in Management, General Business, Liberal Arts, Math, and Sciences. The program has transfer opportunities for the student interested in a bachelors degree in Management or Business Administration, as well as employment possibilities for students who choose to enter the workforce upon graduation.

The program is designed to be completed in two years by the full-time student. Part-time students may also pursue this degree and can proceed at their own pace taking day, evening, or weekend classes.

FIRST YEAR			**HOURS/WEEK**		**CREDITS/SEMESTER**
Fall Semester			Class	Lab	
BUS	111	Finanical Accounting	4	0	4
BUS	118	Business Law I	3	0	3
BUS	141	Marketing	3	0	3
BUS BUS	112 or 110	Quantitative Business Methods or Introduction to Business	3	0	3
ENG	110*	College Writing	3	0	3
BUS	107	Freshman Experience	1	0	1
			17	**0**	**17**
Spring Semester					
BUS	210	Managerial Accounting	4	0	4
BUS	120	Business Law II	3	0	3
BUS	115	Business Statistics	3	0	3
ECO	111	Macroeconomics	3	0	3
CST	105	Computer Applications	2	2	3
			15	**2**	**16**
SECOND YEAR					
Fall Semester					
BUS	245	Management: A Behavioral Approach	3	0	3
ECO	110	Microeconomics	3	0	3
—	—	Lab Science Elective / Liberal Arts Elective*	3	3	3-4
—	—	Effective Speaking / Foreign Language Elective*	3-4	0	3-4
MAT	—	Advisor Approved Math course (MAT 117 or higher)*	3-4	0	3-4
			15-17	**0-3**	**15-18**
Spring Semester					
BUS	224	Business Finance	3	0	3
BUS	248	Human Resource Management	3	0	3
SOS	116	International Business Environments	3	0	3
—	—	Liberal Arts Elective / Foreign Language Elective / Lab Science*	3-4	0-3	3-4
ENG	—	Advisor Approved ENG course*	3	0	3
PED	—	Physical Education	2	0	1
			16-17	**0-3**	**16-18**

Total Credits: 64-68 Credits

Program supervised by:

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John J. Bunnell
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Membership of the Business Department Advisory Council consists of representatives from area organizations. The Committee members are selected to serve on a rotating basis and are selected annually with some members remaining on the council for multiple terms.

***NOTE:** Program pending N.Y.S. approval

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*or ENG 111, based on placement test.

[1] Be certain to consult advisor when selecting electives.

Manufacturing Resources Management

Associate in Applied Science

The Manufacturing Resources Management program is designed for those who currently work in or aspire to work in job titles such as materials coordinator, buyer, production planner, and expeditor.

Courses are offered days, nights, and weekends, with many being available on site at local businesses. The program is designed primarily for those who are currently employed and pursuing part-time studies. However, full-time students may also enroll.

All students choose a specialization in either Purchasing or Production and Inventory Management and take specialty courses in their respective area. The intent of this specialization is to prepare the student to sit for certification exams as offered through APICS and N.A.P.M.

The department also offers course requirements for related certificates in Purchasing and Manufacturing Resources Management. All of the courses in these certificates fit into the AAS degree program.

CORE COURSES		HOURS/WEEK		CREDITS/SEMESTER
		Class	Lab	
BUS 111	Financial Accounting	4	0	4
BUS 112	Quantitative Business Methods	3	0	3
BUS 115	Business Statistics	3	0	3
BUS 118	Business Law I	3	0	3
BUS 120	Business Law II	3	0	3
BUS 141	Marketing	3	0	3
BUS 210	Managerial Accounting	4	0	4
BUS 248	Human Resource Management	3	0	3
ECO 110	Microeconomics	3	0	3
ECO 111	Macroeconomics	3	0	3
ENG 110*	College Writing	3	0	3
ENG 150	Technical Writing	3	0	3
MRP 110	Principles of Materials Management	4	0	4
MRP 154	Purchasing	3	0	3
MRP/BUS	Elective	3	0	3
MAT —	Advisor Approved Math course[1]	3-4	0	3-4
MAT —	Advisor Approved Math course[1]	3-4	0	3-4
	Lab Science Elective[1]	3-4	0-3	3-4

SPECIALIZATION (CHOOSE ONE)

Purchasing Certification Studies[2] (C.P.M. OR A.P.P.)

Courses	Credits
MRP 155—Advanced Purchasing	4
MRP 296—CPM Certification Directed Study	4
TOTAL CREDITS	8

OR

Production and Inventory Management Certification Studies (CPIM)[3]

MRP 195—Manufacturing Resources Management I	4
MRP 295—Manufacturing Resources Management II	4
TOTAL CREDITS	8

Total Credits: 65-66

Program supervised by:
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Membership of the Business Department Advisory Council consists of representatives from area organizations. The Committee members are selected to serve on a rotating basis and are selected annually with some members remaining on the council for multiple terms.

Certificates in Purchasing and Manufacturing Resources Management are available to students who complete a predetermined selection of courses on this page. Please contact the program supervisor, above, for more information.

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*or ENG 111, based on placement test.

[1] Be certain to consult advisor when selecting electives

[2] The C.P.M. and A.P.P. designations are awarded by the National Association of Purchasing Management, Inc. You must pass the appropriate examinations and meet other requirements as stipulated by N.A.P.M. to be eligible for these certifications. The BBC program advisor can provide further information.

[3] The CPIM (Certified in Production and Inventory Management) designation is awarded by the American Production and Inventory Control Society (APICS). You must pass the appropriate examinations as stipulated by APICS to be eligible for this certification. The BBC program advisor can provide further information.

Marketing/Management/Sales

Associate in Applied Science

The Marketing/Management/Sales Associate in Applied Science is designed as a general business program leading to immediate employment opportunities, although many students will transfer to 4-year institutions. By carefully selecting the business course electives that comprise 18 to 21 credits of the degree, a student can generate a concentration in a particular field such as Sales, Retailing, Management, Marketing, or Entrepreneurship (Small Business Management). To identify these courses, students should discuss their interests with their academic advisors. Three such recommended sequences are shown on the following pages.

This program may be taken on a full-time or part-time basis, including on weekends (see College On The Weekend). The first 33 credits of the General degree may also earn a Business Skills Certificate.

General Emphasis

Courses		Credits
BUS 100	Accounting I	4
BUS 101	Accounting II	4
BUS 112	Quantitative Business Methods	3
BUS 118	Business Law I	3
ENG 110	*College Writing I	3
BUS 141	Marketing	3
BUS 152	Selling Fundamentals	3
BUS 269	Business Reports and Computer Communications	3
— —	Liberal Arts and Related Careers Elective	3
BUS 120w	Business Law II	3
BUS	Business Electives	12
— —	Business Related Electives (see below)	3
— —	Social Science Elective	3
ENG	Advisor Approved English	3
BUS 115	Business Statistics	3
PHS 111[1]	Physical Science for Today	3
— —	Math or Science Elective	3-4
ECO 110w	Micro Economics	3
CST 105	Computer Applications or	3
BUS 181	The Internet with Business Application or 3, 1-Credit Approved BIT Electives.	

AAS in Marketing/Management
Total Credits 68-69

Entrepreneurship Sequence

FIRST YEAR

Fall Semester		HRS/WK CLASS	LAB	CRED/SEM
BUS100	Accounting I	4	0	4
BUS118	Business Law I	3	0	3
BUS141	Marketing	3	0	3
BUS112	Quantitative Business Methods	3	0	3
BUS107	Freshman Experience	1	0	1
ENG110	College Writing I	3	0	3
		17	0	17

Spring Semester		HRS/WK CLASS	LAB	CRED/SEM
— —[4]	Advisor Approved Computer Elective (see list)	3	0	.3
BUS101	Accounting II	4	0	4
BUS120w	Business Law II	3	0	3
— —	Social Science Elective	3	0	3
	Math/Science Elective	3-4	0	3-4
		16-17	0	16-17

SECOND YEAR

Fall Semester		HRS/WK CLASS	LAB	CRED/SEM
BUS131	Personal Finance	3	0	3
BUS224[3]	Business Finance	3	0	3
SPK110	Effective Speaking	3	0	3
PHS111[1]	Physical Science Today	3-4	3	3-4
ECO110w	Micro Economics	3	0	3
		15-16	3	15-16

Spring Semester		HRS/WK CLASS	LAB	CRED/SEM
BUS266[3]	Adv. + Pro. for SB	4	0	4
BUS263[3]	Small Bus. Seminar	4	0	4
BUS245	Management Behavioral	3	0	3
ENG	Advisor Approved Eng.	3	0	3
Select one of the following:				
BUS297[2]	Co-Op or	3	0	3
BUS	Business Elective	3-4	0	3-4
		17-18	0	17-18

Total Credits: 65-68

Program supervised by:

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Membership of the Business Department Advisory Council consists of representatives from area organizations. The Committee members are selected to serve on a rotating basis and are selected annually with some members remaining on the council for multiple terms.

NOTE: This program can be taken on a part-time or weekend basis. See College On The Weekend program on page 28.

Suggested Management Electives: BUS 116, BUS 181, BUS 210, BUS 224, BUS 245, BUS 246, BUS 248, BUS 252, BUS 255, BUS 258, BUS 262, BUS 270, BUS 275.

Suggested Marketing Electives: BUS 181, BUS 110, BUS 129, BUS 131, BUS 135, BUS 152, BUS 154, BUS 229, BUS 238, BUS 262, BUS 297.

Business related courses choose from BUS, BIT, CST, DMR, MAT, MET, MPR, BNK, BHM, LAW, TTM.

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*or ENG 111, based on placement test.

[1] Students who are planning to transfer are advised to take a four credit lab science elective.

[2] Recommended.

[3] Take these courses in the semester (spring or fall) indicated. They are not offered in all semesters.

[4] BUS 181, CST 105, CST 158 or approved BIT 1.0 credit courses.

Management Sequence

FIRST YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
BUS100	Accounting I	4	0	4
BUS118	Business Law I	3	0	3
BUS141	Marketing	3	0	3
ENG110*	College Writing I	3	0	3
BUS112	Quantitative Business Methods	3	0	3
BUS107	Freshman Experience	1	0	1
		17	**0**	**17**
Spring Semester				
BUS101	Accounting II	4	0	4
BUS120w	Business Law II	3	0	3
BUS152	Selling Fundamentals	3	0	3
— —[2]	Lab Science	3	3	4
MAT	Math Elective	3-4	0	3-4
		16-17	**3**	**17-18**

SECOND YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
BUS115	Business Statistics	3	0	3
BUS224[1]	Business Finance	3	0	3
BUS248	Human Resource Management	3	0	3
CST105	Computer Applications.	3	0	3
[3]Advisor approved computer elective				
SPK110	Effective Speaking	3	0	3
ECO110w	Micro-Economics	3	0	3
		18	**0**	**18**
Spring Semester				
ENG	Advisor Approved Eng.	3	0	3
BUS	Business Elective	3	0	3
BUS245	Management: A Behavioral Approach .	3	0	3
ECO111	Macro-Economics	3	0	3
— —	BUS/CST or Liberal and General Studies Elective	2-3	0-2	3
		14-15	**0-2**	**15**

Total Credits: 67-68

Marketing Sequence

FIRST YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
BUS100	Accounting I	4	0	4
BUS118	Business Law I	3	0	3
BUS141	Marketing	3	0	3
ENG110	College Writing I	3	0	3
BUS112	Quantitative Business Methods	3	0	3
BUS107	Freshman Experience	1	0	1
		17	**0**	**17**
Spring Semester				
BUS120w	Business Law II	3	0	3
BUS248	Human Resource Management	3	0	3
ECO110w	Micro Economics	3	0	3
PSY110	General Psychology	3	0	3
SPK110	Effective Speaking	3	0	3
		15	**0**	**15**

SECOND YEAR		HRS/WK		CRED/SEM
Fall Semester		CLASS	LAB	
BUS229[1]	Advertising	4	0	4
— —[3]	Advisor Approved Computer Elective (see list)	2-3	0-2	3
BUS152	Selling Fundamentals	3	0	3
PHS111[2]	Physical Science for Today	2	2	3
BUS	Business Elective	3-4	0	3-4
ENG	Advisor Approved Eng.	3	0	3
		18-19	**2**	**19-20**
Spring Semester				
BUS129[1]	Consumer Behavior	3	0	3
BUS269	Business Reports & Computer Communications	3	0	3
BUS242[1]	Marketing Seminar	3	0	3
BUS245	Management: A Behavioral Approach	3	0	3
BUS267[1]	Retailing in a Service Economy	3	0	3
— —	Mathematics or Science Elective	3-4	0-3	3-4
		18-19	**0-3**	**18-19**

Total Credits: 69-71

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*or ENG 111, based on placement test.

[1] Take these courses in the semester (spring or fall) indicated. They are not offered in all semesters.

[2] Students who are planning to transfer are advised to take a four credit lab science elective.

[3] BUS 181, CST 105, CST 158 or Approved BIT 1.0 Credit Courses.

Mechanical Engineering Technology

Associate in Applied Science

The Mechanical Engineering Technology program is specifically designed to prepare students in the applied aspects of engineering. Mechanical Engineering Technology is a vital part of the engineering field. It requires the application of scientific and engineering knowledge combined with practical technical skills and methods in support of engineering activities. The program emphasizes the application of engineering principles to real-world industrial problems utilizing current up-to-date equipment and techniques.

Mechanical Engineering Technology is the broadest of all engineering technology disciplines. Graduates are able to pursue careers in many segments of industry, with starting salaries averaging over $24,000 per year.

The Mechanical Engineering Technology program at Broome Community College is divided into four major areas: Engineering Materials, Fluid Mechanics and Thermodynamics, Mechanical Drawing and Design — CAD, and Manufacturing Processes and Quality Control.

The program is designed to prepare graduates for their profession by providing a solid background in the major areas of Mechanical Engineering Technology, but also allows students to continue towards a Baccalaureate Degree at various colleges and universities.

The Mechanical Engineering Technology program is accredited by the Technology Accreditation Commission of the Accreditation Board of Engineering and Technology (TAC/ABET).

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

			Hours/Week		Credits/Semester
FIRST YEAR					
Fall Semester			Class	Lab	
CST	106	Computers in Technology	2	2	3
ENG	110	College Writing I	3	0	3
MAT	150[1]	College Technical Mathematics	4	0	4
MET	113	Engineering Drawing I w/CAD	1	3	2
TEC	100	Technology Orientation	0	1	0.5
MET	121	Manufacturing Processes I	1	3	2
			11	**9**	**14.5**
Spring Semester					
MET	122	Manufacturing Processes II	2	3	3
ENG	150	Technical Writing	3	0	3
MET	116	Engineering Drawing II w/CAD	2	3	3
MET	134	Statics	3	0	3
MAT	160[1]	Applied Calculus I	4	0	4
SOS	120	Science, Technology & Democratic Society	3	0	3
			17	**6**	**19**
SECOND YEAR					
Fall Semester					
MET	235	Strength of Materials	2	3	3
MET	243w	Fluid Mechanics	2	3	3
MET	211	Basic Mechanical CAD	1	3	2
MET	234	Dynamics	1	2	2
MET	264	Statistical Quality Assurance	1	3	2
PHY	161	Physics I	3	3	4
— —		Social Science Elective	3	0	3
			13	**17**	**19**
Spring Semester					
MET	238	Mechanical Design	3	3	4
MET	252	Engineering Materials	3	3	4
MET	244	Thermodynamics	2	3	3
EET	210	Electricity & Electronics	3	3	4
PHY	162	Physics II	3	3	4
MET	200	Senior Seminar	0	2	1
			14	**17**	**20**

GRADUATION REQUIREMENTS: 72-1/2 CREDITS

Program supervised by:

John Petrewski
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Curriculum Advisory Council: Mechanical Engineering Technology

RONALD AMBERGER / Engineering Technology Department, Rochester Institute of Technology

JOSEPH DEANGELO / Manager, Technical Services NYSEG

LOUIS EVANGELISTI / Standards Supervisor (Retired) Singer-Link

CARL A. LUNDGREN / Engineering Technology Department, Rochester Institute of Technology

ROBERT MACCHIARELLA / Universal Instrument Corp.

PETER MAJESTIC / Senior Engineer, Corning Inc.

VICKIE MAXON / Career Center Coordinator, IBM Corporation

JEFF MONICO / Manager, Testing Lab The Raymond Corporation

RAYMOND PERINE / NYSEG (Retired)

RICHARD VLASAK / Advisory Reliability Engr. (Retired) IBM Corporation

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[1] Or MAT 181-182 Calculus I and II with Analytic Geometry. Prior approval by Department Chairperson required.

Program supervised by:

Bonnie Lou Deister
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Telephone: 607 778-5161
E-mail: deister_b@sunybroome.edu

Curriculum Advisory Council: Medical Assistant

DR. BRUCE BOWLING / Chief Medical Advisor, Endwell Family Physicians
CINDY BURGER / Exec. Director, Medical Societies of Broome, Chemung, Delaware and Otsego Counties
RACHELLE CAROC / Tier Orthopedic Assoc. PC
BONNIE DEISTER / Chairperson, Medical Assistant, BCC
PHYLLIS DEVINE / CMA Medical Assistant Graduate
CARL GAUDINIER / United Medical Associates
THERESA GAVEZZI, M.S., CMA / Instructor, BCC
BEA GRACE, R.N. / Endwell Family Physicians
HELEN KILLIAN / UHS Family Health Center
DEMETRIO A. PEGUERO, M.D. / IBM
DIANA PIGOS, C.M.A. / Endwell Family Physicians
ANN PULANO / Vestal Medical Assoc.
BETSY ROMEO, M.S., FNPC / Instructor, BCC
CATHY SCHULDT, CMA / Instructor, BCC

ALL STUDENTS MUST HAVE CPR CERTIFICATION and a physical before going out to clinical in senior semester.

For important general information regarding Health Science curricula see pages 10 and 22.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs, where clinical experience or on-campus Dental Clinic is a curriculum requirement, should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science curricula.

Medical Assistant

Associate in Applied Science

A Medical Assistant is one of the most versatile of all the allied health professionals. Graduates find positions in physicians' offices, medical centers, clinics, hospitals, armed services, laboratories and pharmaceutical companies. The program is designed to enable graduates to do both administrative and clinical/laboratory techniques.

Students in the program acquire the knowledge and necessary techniques to prepare patients for examinations and to assist the physician in performing not only routine medical procedures but also electrocardiography, audiometry, urinalysis and hematological tests.

Courses in medical terminology, keyboarding, medical correspondence and medical office management, prepare the student to conduct business and administrative duties.

Directed Practice is an integral part of the curriculum as senior students participate in a 15-week, externship program that requires a working experience in physicians' offices or other health care facilities.

Graduates may elect to take a national examination given by the AAMA to become Certified Medical Assistants.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR

Fall Semester

		Hours/Week		Credits/Semester
		Class	Lab	
BIO 131	Human Biology I	3	2	4
ENG 110	College Writing I	3	0	3
MDA 102	Medical Assisting Science	2	0	2
MDA 104	Keyboarding and Medical Word Processing	3	0	3
MDA 114	First Aid & Personal Safety: Management of Emergencies	0	2	1
HIT 106	Medical Terminology	3	0	3
		14	**4**	**16**

Spring Semester

		Class	Lab	Credits/Semester
BIO 132	Human Biology II	3	2	4
MDA 115	Medical Assisting Procedures I	3	2	4
MDA 106	Medical Transcription and Correspondence	4	0	4
SOC SCI/Civic elective[1]		3	0	3
		13	**4**	**15**

SECOND YEAR

Fall Semester

		Class	Lab	Credits/Semester
MDA 206	Medical Office Management	3	2	4
MDA 208	Medical Ethics, Law and Economics	3	0	3
MDA 201	Medical Assisting Prodecures II	2	4	4
PSY 110w	General Psychology	3	0	3
MDA 207	Advanced Medical Office Management	3	2	4
		14	**8**	**18**

Spring Semester

		Class	Lab	Credits/Semester
MDA 211	Medical Assisting Procedures III	3	2	4
MDA 245	Directed Practice & Seminar	1	16	5
MDA 210	Pharmacology	2	0	2
ENG 220	Communicating About Ideas and Values	3	0	3
		9	**18**	**14**

GRADUATION REQUIREMENTS: 63 CREDITS

Medical Laboratory Technology

Associate in Applied Science

Medical Laboratory Technicians perform biological tests in search of diagnostic clues as evidence of health or disease. In the search for data on a patient's health, people working in this field may examine specimens through a microscope or perform, for example, the tests necessary to match a donated unit of blood to a patient in need of that unit. They may identify the microorganisms associated with health and disease. They are also competent operators of the computers and complex instrumentation which are used in most areas of today's laboratories.

The Medical Technician plays a vital role in patient care by performing the full range of laboratory testing in six major areas of the laboratory: Hematology, Immunology, Microbiology, Body Fluids, Blood Banking, and Chemistry. Technicians may choose to advance, by education or experience, to the levels of Medical Technologist or specialist.

Employment may be found in hospital laboratories, physician offices, clinics, commercial firms such as pharmaceutical companies, all types of research facilities, the armed forces, public health centers, and veterinary clinics.

Wherever they work, the technicians and technologist in this field share a strong desire to help others, a love of challenge and responsibility, and the ability to complete a wide variety of scientific tests accurately and reliably.

Pre-admission advisement is recommended.

MEDICAL LABORATORY TECHNOLOGY - CURRICULUM REQUIREMENT: The following coursework must be successfully completed to earn to A.A.S. degree in Medical Laboratory Technology.

FIRST YEAR

Fall Semester		Hours/Week Class	Lab	Credits/Semester Credits
BIO 131	Human Biology I	3	2	4
CHM 145	Chemistry I	3	3	4
ENG 110	College Writing I	3	0	3
MAT 125	Statistics Using Computers	3	1	3
MLT 110	Introduction to Medical Laboratory Technology (5 wks)	3	0	1
MLT 120	Medical Laboratory Techniques and Practices (10 wks)	3	0	2
				17

Spring Semster		Class	Lab	Credits
BIO 132	Human Biology II	3	2	4
CHM 146	Chemistry II	3	3	4
MLT 201	Hematology/Coagulation	3	4	4
MLT 202	Urinalysis	.75	.75	1
MLT 204	Fund. Phlebotomy (5 wks)	3	0	1
	Civic Education Elective	3	0	3
	Social Science Elective	3	0	3
				20

SECOND YEAR

Fall Semester		Class	Lab	Credits
CHM 133	Survey of Organic Chem	2	4	3
CHM 220	Intro to Instrumental Analysis	1	3	2
LIT 200	Intro to Literature or equiv	3	0	3
MLT 207	Clinical Chemistry	3	6	5
MLT 208	Pathogenic Microbiology	3	0	3
MLT 210	Diagnostic Microbiology Lab	0	6	2
				18

Spring Semester		Hours/Day Class	Lab	Clinical	No. of Weeks	Credits
MLT 205	Immunology	4	2	0	2	3
MLT 206	Immunohematology	4	2	0	2	3
MLT 240	Clinical Affiliation I	0	0	8	5	5
MLT 241	Clinical Affiliation II	0	0	8	4	4
MLT 242	Clinical Affiliation III	0	0	8	2	2
MLT 295	Senior Seminar	6	0	0	1	1
						18

GRADUATION REQUIREMENTS: 73 CREDITS

Program Supervised by:

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Curriculum Advisory Council: Medical Laboratory Technology

ANDREA C. WADE, Ph.D., MT(ASCP) / Broome Community College

JEANNINE BONHOFF MT(ASCP) / M.I. Bassett Hospital

PAUL ENGINERI MBA, MT(ASCP) / United Health Services

BRENDAN FLYNN, Ph.D. / Chemistry Department, Broome Community College

CAROLYNN FULLER, MBA, MT(ASCP) / Arnot Ogden Medical Center

CARL KLEVINSKI MS, MT(ASCP) / St. Joseph's Hospital, Elmira

HARRIET B. ROLEN-MARK, MA, MT(ASCP) / SUNY-Health Science Center

LINDA SULLIVAN, MT(ASCP) / Abbott Diagnostics Division

JOHN WALTERS, BS / United Health Services

BARRY WINTERS, MSA, MSMT, MT(ASCP)SM / Cortland Memorial Hospital

ANNE WOLANSKI, MBA, BSE, (ASCP)SH / Lourdes Hospital

LOREN WOLSH, MD / United Health Services

For important general information regarding Health Science curricula see pages 10 and 22.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs where clinical experience is a curriculum requirement should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science Curricula.

Program supervised by:

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Medical Transcription

Certificate Program*

Medical Transcriptionists understand and use medical terms, appropriate reference materials, word processing equipment and software to transcribe medical reports dictated by physicians and other health care professionals.

Medical transcriptionists work in a variety of settings, including Medical Record Departments and ancillary professional departments of hospitals (e.g. radiology, pathology, etc.), clinics, doctors' offices, private transcription businesses and other health care facilities.

			HOURS/WEEK		CREDITS/SEMESTER
First Semester			Class	Lab	
BIO	131	Human Biology I	3	2	4
HIT	106[2]	Medical Terminology	3	0	3
	OR				
HIT	107	Medical Transcription and Correspondence	4	0	4
ENG	110	College Writing I	3	0	3
	OR				
BIT	110	Business English	3	0	3
BIT	100[1]	Keyboarding	2	3	3
	OR				
MDA	104	Keyboarding & Medical Word Processing	3	0	3
			15/16	**15**	**17**
Second Semester					
BIO	132	Human Biology II	3	2	4
HIT	208[2]	Advanced Medical Transcription	4	0	4
HIT	222	Medical Legal Aspects	3	0	3
	OR				
MDA	208	Medical Ethics, Law & Economics	3	0	3
MDA	210	Pharmacology	2	0	2
			14	**2**	**15**

Additional Courses

BIO	140	Pathophysiology
CST		Any computer course dealing with word processing.

***NOTE:** (This program is pending State Education Department and SUNY approval.)

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[1] Students who have achieved 35 words/min with less than 5 errors on placement test may waive this requirement.

[2] Students wishing to receive a profiency award from the College may elect to take minimum core courses.

Nursing

Associate in Applied Science

Broome Community College Department of Nursing offers a two-year, college-based curriculum to prepare graduates for immediate entrance into the entry level of registered nursing. This program is accredited by the National League for Nursing and registered by the New York State Education Department. Graduates of this curriculum are eligible to take the national licensing examination for registered nurses. They are qualified for immediate employment in long term, acute care, home care, private medical offices, health maintenance organizations and clinic settings with salaries ranging from $23,795 to $27,202. Graduates may continue their education for the baccalaureate and higher degrees in the nursing field. BCC Nursing Department has articulation agreements with a variety of Bachelor of Science Nursing schools which makes transfer to these programs a smooth transition.

LPNs may apply for direct transfer credit and/or challenge first year nursing courses.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses. These students who wish part-time study may do so.

FIRST YEAR			HOURS/WEEK			CREDITS/SEMESTER
Fall Semester			Class	Clinical	Lab	
ADN	105	Meeting Human Needs	4	6	2	7
BIO	131	Human Biology I	3	0	2	4
PSY	110	General Psychology	3	0	0	3
ENG	110	College Writing I	3	0	0	3
						17
Spring Semester						
ADN	106[1]	Meeting Human Needs II	4	6	2	7
ADN	298[4]	Nursing Seminar	(1)	0	0	(1)
BIO	132	Human Biology II	3	0	2	4
PSY	210W	Developmental Psychology	3	0	0	3
Social Science			3	0	0	3
MDA	210	Pharmacology	2	0	0	2
						19(20)
SECOND YEAR						
First Semester						
ADN	211[1]	Meeting Human Needs III	4.5	6	1.5	7
ADN	212[1]	Meeting Human Needs IV	4.5	6	1.5	7
ADN	298[4]	Nursing Seminar	(1)	0	0	(1)
BIO	150	Microbiology	3	0	2	4
						18(19)
Spring Semester						
ADN	213[1]	Meeting Human Needs V	4.5	6	1.5	7
ADN	214[1]	Meeting Human Needs VI	4.5	6	1.5	7
ENG	220	Communicating About Ideas and Values	3	0	0	3
						17

GRADUATION REQUIREMENTS: 71 CREDITS

For important general information regarding Health Science curricula see pages 10 and 22.

Program supervised by:

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Curriculum Advisory Council: Nursing

FRAN ANDERSON / Researcher - Our Lady of Lourdes Hospital

EILEEN COONEY / Director of Nursing, Elizabeth Church Manor

JANET DENMAN / BCC Nursing Faculty

ANNETTE GOULD / Director, BOCES LPN Program

SALLY HOFFMAN / Lourdes Home Care

ANASTASIA KALECHITZ / Graduate of BCC Nursing Program

CLAIRE LIGEIKIS-CLAYTON / Chairperson, BCC Department of Nursing, Broome Community College

DEBBIE LIS / Director of Nursing Education, UHS

JOANN MANIAGO / Consumer

TRICIA NEWLAND / BCC Nursing Faculty

JULIA PEACOCK / Dean of Applied Sciences, Broome Community College

REGINA PEACOCK / Director of Nursing - Good Shephard

BLENDA SMITH / Binghamton University - Nursing Faculty

JANET ZELESNIKAR / Nurse Recruiter - United Health Services

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[1] Clinical components run concurrently with lecture. In order to progress, students must pass the clinical component which corresponds with each theory course.

Notes:

1. In order to progress, students must complete assignments in the Nursing Skills Center. Nursing Skills Center assignments are completed outside of class and clinical times.
2. Each student enrolled in Nursing must meet the mathematics proficiency requirements at selected intervals during the program.
3. Clinical experiences for Nursing students may be scheduled during evening hours on their regular extended campus lab days and on weekends, as needed. Students are responsible for providing their own transportation to clinical and community facilities in Broome and surrounding counties.
4. ADN 298, Nursing Seminar, is required of all returning, transfer, and challenge students.
5. The Nursing program must be completed in 4 academic years.
6. In order to be eligible for licensure as a registered professional nurse, graduates must meet the criteria for good moral character as determined by New York State Education Department Candidates do not need to be a U.S. citizen.
7. Students must receive a "C" or better in all ADN courses in order to progress in the Nursing Program.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs, where clinical experience or on-campus Dental Clinic is a curriculum requirement, should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science curricula.

Program supervised by:
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Curriculum Advisory Council:
Business Information Technology

Membership of the Business Information Technology Advisory Council consists of representatives from area organizations. The Council members are selected to serve on a rotating basis and are selected annually with some members remaining on the Council for multiple terms.

See also:
Business Information Management pg. 45

Office Administration*

(Formerly Administrative Assistant)

Associate in Applied Science

Students in this program concentrate their studies in such areas as computer applications, information processing, business communications, and office management. Graduates are prepared to handle the basic operations and administrative duties of the integrated electronic office. By careful selection of electives, students may be exposed to specific office environments, such as medical or legal offices.

Students interested in obtaining skills or knowledge in a particular field without committing to a full-time degree program may earn a certificate of achievement by completing three to five required courses in areas such as: computer applications, business communications, or office management. Interested students should contact the Business Information Technology chairperson for more information.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR			**HOURS/WEEK**		**CREDITS/SEMESTER**
Fall Semester			Class	Lab	
BIT	100	Keyboarding	3	0	3
BIT	110	Business English	3	0	3
BUS	112	QBM	3	0	3
ENG	110	College Writing I	3	0	3
		Social Science Elective	3	0	3
			15	**0**	**15**
Spring Semester					
BIT	130	Word Processing	3	0	3
BIT	140w	Business Communications	3	0	3
SPK	110	Effective Speaking	3	0	3
BIM	100	Intro. To Business Information Mgmt.	3	0	3
		Lab Science Elective	2	2	3
ENG	111	College Writing II	3	0	3
			17	**2**	**18**
SECOND YEAR					
Fall Semester					
BIT	104	Keyboarding/Skill Building	1	0	1
BIT	200	Spreadsheets with Bus. Appl.	3	0	3
BIT	255	Business Integrated Office Appl.	3	0	3
BIT	270w	Personal & Professional Dev.	3	0	3
BUS	108	Accounting for a Service Business	4	0	4
BIT		Elective	3	0	3
			17	**0**	**17**
Spring Semester					
BIT	275	Advanced Business Communications	3	0	3
BIT	280	Office Administration	3	0	3
BIT	297	Internship	2	0	2
BIT		Elective	3	0	3
		Social Science Elective	3	0	3
		MAT/SCI Elective	3	0	3
			17	**0**	**17**

Total Credits: 67

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[1] Depending on Mathematics entrance testing scpores, the student will take MAT 090 and/or BUS 112.

Students should check with their advisor during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

[2] At least one of the social science electives must be from the following courses: ECO 110/111, HIS 130, POS 201/204, SOC 111, SOS 111/120/290.

*Pending approval of title changes

w - Writing Emphasis Course

Office Technology

Certificate Program

The Office Technology Certificate program allows students the flexibility to design a program that will best meet their needs. Students completing the 30-credit Certificate Program must have earned 15 credits from the Business Information Technology Departmental offerings and an additional 15 credits from any subject area — including Business Information Technology. With proper planning and advisement, students may be able to apply the 30 credits earned toward an AAS degree in Office Administration or Individual Studies.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

Office Technology Core Courses[1] (suggested, not required - total of 15)

Keyboarding (BIT 100)
World Processing (BIT 130)
Spreadsheets with Business Applications (BIT 200)
Business English (BIT 110)
Business Communications (BIT 140W)
Plus 15 additional credits in a specific Career Concentration — 2 examples follow:

Advanced Office Technology Concentration[1] (suggested, not required - total 15 credits)
Document Formatting (BIT 120)
Introduction to Business Information Management (BIM 100)
Integrated Businesss Office Applications (BIT 255)
Machine Transcription (BIT 210)
Cooperative Work Experience (BIT 197)

Office Administration Concentration[1] (suggested, not required - total 15 credits)

Project Management (BIT 265)
Personal and Professional Development (BIT 270)
Advanced Business Communications (BIT 275)
Office Administration (BIT 280)
Cooperative Work Experience (BIT 197)

Program supervised by:

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Curriculum Advisory Council: Business Information Technology

Membership of the Business Information Technology Advisory Council consists of representatives from area organizations. The Council members are selected to serve on a rotating basis and are selected annually with some members remaining on the Council for multiple terms.

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[1] A student who wishes to obtain skills and knowledge in the Office Technology core or a particular Career Concentration without committing to a full-time degree or 30-credit certificate program may earn a Certificate of Achievement after completion of 15 related credits. Interested students should contact the Business Information Technology Chair for assistance in planning and scheduling programs of study.

Paralegal

Associate in Applied Science*

The Paralegal Studies program is designed to introduce students to the substantive and practical aspects of the paralegal function, leading to an Associate in Applied Science degree. The program emphasizes both the theory and the practice of paralegal procedures essential for employment in a law office or other legal settings. The program can be pursued on a full or part-time basis, day and evening.

Students wishing to transfer to four-year schools as pre-law majors should consult the department.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

FIRST YEAR		HOURS/WEEK Class	Lab	CREDITS/SEMESTER
Fall Semester				
PSY 110	General Psychology	3	0	3
OR				
SOC 110	Introduction to Sociology			
ENG 110	College Writing I	3-4	0	3-4
LAW 110	Survey of Paralegalism	3	0	3
— —	Math OR Science Elective	3-4	0	3-4
— —	Business Elective	3	0	3
BUS 107	Freshman Experience	1	0	1
		16-18	**0**	**16-18**
Spring Semester				
BUS 100 or BUS 108 or BUS 111	Accounting (see advisor)	4	0	4
— —	Business Elective	3	0	3
LAW 200	Real Property Law	3	0	3
— —	Paralegal Elective	3	0	3
— —	Business Elective	3	0	3
		16	**0**	**16**

SECOND YEAR		Class	Lab	Credits
Fall Semester				
LAW 207w	Legal Writing and Research	3	0	3
LAW 215	Estates, Probates and Trusts	3	0	3
— —	Math/Science Elective[1]	3-4	0	3-4
— —	Business Elective	3	0	3
— —	Social Science Elective[2]	3	0	3
— —	Free Elective	3	0	3
		18-19	**0**	**18-19**
Spring Semester				
ENG	Advisor Approved English Course	3	0	3
— —	Paralegal Elective	3	0	3
— —	Paralegal Elective	3	0	3
— —	Paralegal Elective	3	0	3
— —	Free Elective	3	0	3
— —	Arts/Science Elective	3	0	3
		18	**0**	**18**

Total Credits: 68-71

Program supervised by:

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***A Paralegal certificate is available to students who complete a predetermined selection of courses on this page. Please contact the program coordinator, above, for more information.**

Students should check with their advisors during the scheduling process to make sure courses are taken in proper sequence and any prerequisites have been met. Some flexibility is available as to when courses must be taken, but not all courses are offered every semester.

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[1] Recommended Math/Sciences: MAT 113/114/124, PHS 111

[2] Choose one from the following: ECO 110/111, SOC 111, POS 201, SOS 111/120/130.

Phlebotomy

Certificate Program*

The Phlebotomy Certificate curriculum prepares students for entry-level positions in hospitals, clinics and other health care settings, collecting blood samples from patients, performing related technical procedures and processing the associated clerical tasks. As vital members of the health care team, phlebotomists work closely with patients and require good communication and organizational skills. To be successful, phlebotomists should be practical and accurate, able to inspire confidence in others and to put patients at ease. Phlebotomists need to be skilled at collecting blood and other specimens correctly to procure high quality specimens for laboratory analysis. The Phlebotomy Certificate program emphasizes a combination of phlebotomy theory and practical application necessary for successful employment.

Graduates may qualify for employment in hospitals, clinics, physicians' offices, and other health care settings. After completing requirements, graduates are eligible to sit for a national certification exam.

Phlebotomy - Curriculum Requirements

The following coursework must be successfully completed to earn a certificate in Phlebotomy.

			Hours/Week		Credits/Semester
First Semester			Class	Lab	Credits
BIO	131	Human Biology I	3	2	4
HIT	106	Medical Terminology	3	0	3
ENG	110	College Writing I	3	0	3
MDA	208	Medical Ethics Or HIT 222 Medical Legal Aspects	3	0	3
MILT	110	Introduction to Medical Laboratory Technology (5 wks)	3	0	1
					14
Spring Semester					
MLT	204	Fund. Phlebotomy (5 wks)	3	0	1
MLT	214	Spec. Phlebotomy (10 wks)	3	0	2
MLT	215	Phlebotomy Practicum	160 hrs	0	5
CST	105	Computer Applications	2	2	3
SPK	110	Effective Speaking Or ENG 220 Communicating About Ideas and Values	3	0	3
					14

GRADUATION REQUIREMENTS: 28 CREDITS

Program supervised by:
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For important general information regarding Health Science curricula see pages 10 and 22.

OSHA STANDARDS

Although not required by Broome Community College or the State University of New York, students enrolled in health science programs where clinical experience is a curriculum requirement should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science Curricula.

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*The Phlebotomy Certificate Program is pending approval by State Education Department, SUNY, and the National Accrediting Agency for Clinical Laboratory Sciences.

Physical Therapist Assistant

Associate in Applied Science

The Physical Therapist Assistant (PTA) is a skilled health technician who works under the supervision of a Physical Therapist. Treatments provided by the PTA include exercises for increasing strength, endurance, coordination and range of motion; the use of heat, cold, electricity, sound and water to relieve pain and stimulate muscle activity; instruction in activities of daily living and the use of assistive devices such as walkers, crutches and wheelchairs. Work settings include hospital, nursing home, rehabilitation center and private practice.

The Physical Therapist Assistant Program at BCC is not designed as a transfer program to an upper division Physical Therapy Program.

Clinical Education is a necessary component of the program. Clinical Education may be out of town and students are responsible for their own housing and transportation. Because of the need to schedule large blocks of time for the clinical education courses, it may not be possible for students to pursue this program on a part-time basis. In addition, students may be required to travel some distance from home to meet this obligation.

SEQUENCE OF COURSES: The following coursework must be successfully completed to earn the A.A.S. degree in Physical Therapist Assistant: (Note: courses are sequential and have pre-requisites.)

			HOURS/WEEK		CREDITS/SEMESTER
General Education Requirements:			Class	Lab	
ENG	110	College Writing I	3	0	3
ENG	220	Communicating About Values	3	0	3
Civic Elective			3	0	3
Biology Requirements:					
BIO	131	Human Biology I	3	3	4
BIO	132	Human Biology II	3	2	4
Physics Requirements:					
PHY	118	Physics for Physical Therapist Assistants	3	2	4
Psychology Requirements:					
PSY	110	General Psychology	3	0	3
PSY	210w	Development Psychology	3	0	3
Physical Therapist Assistant Requirements:					
MDA	114	Standard First Aid Management of Emergencies	0	2	1
PTA	100	Introduction to Physical Therapy I	4	0	4
PTA	101	Introduction to Physical Therapy II	4	0	4
PTA	102	Introduction to Rehabilitation	3	3	4
PTA	103	Physical Agents and Massage	3	3	4
PTA	201	Kinesiology	3	3	4
PTA	202	Therapeutic Exercise	3	3	4
PTA	213w	Senior Seminar I	12	0	5
PTA	224	Senior Seminar II	12	0	1

Clinical Affiliation Requirements:

			Hrs.	Wks.	Credits
PTA	110	Clinical Affiliation I	30	3	2
PTA	210	Clinical Affiliation II	36	5	4
PTA	220	Clinical Affiliation III	40	6	6

GRADUATION REQUIREMENTS: 70 CREDITS

Program supervised by:

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Curriculum Advisory Council:
Physical Therapist Assistant

MARTHA GERTY, PT / Broome Developmental Center, Binghamton, New York

DENISE JOHNSON, R.N. / Administrator - Vestal Nursing Center, Vestal, New York

MARY MORE, MSN. / Assoc. Prof. Nursing - Broome Community College, Binghamton, New York

SUSAN RENDSBURG, PT / Rehabilitation Services, Inc., Binghamton, New York

VICTORIA RUPAKUS / Director of Rehabilitation Services, Our Lady of Lourdes Memorial Hospital, Binghamton, New York

SALLY SPALIK, PTA / Our Lady of Lourdes Memorial Hospital, Binghamton, New York

MICHELE WILLIAMS / Head PT - Outreach Clinic of Lourdes Mem. Hospital, Endwell, New York

For important general information regarding Health Science curricula see pages 10, 13 and 22.

Thirty-five hours of volunteer work in a facility providing Physical Therapy are required prior to enrollment in PTA Courses. Contact department for information.

A minimum grade of C in each PTA course is required in order for a student to progress in the PTA curriculum.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs, where clinical experience or on-campus Dental Clinic is a curriculum requirement, should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science curricula.

Radiologic Technology

Associate in Applied Science

Radiologic Technology is a diverse profession. The radiographer must draw from the fields of communication, psychology, photography, and the physical and biologic sciences, while bringing an investigative approach to daily tasks. Radiographers are in demand in hospitals, physicians' offices, clinics, government, education, industry, and research.

The radiographer produces images used in the diagnosis of disease and injury. He or she operates x-ray equipment, provides patient care and radiation protection, positions the patient for the examination, selects technical factors for radiographic quality, produces and processes radiographs, maintains quality control, and maintains patient records.

A radiographer may continue education in areas such as sonography, nuclear medicine, cardiovascular interventional techniques, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), mammography, departmental administration, quality management, research, education, and radiation therapy.

BCC's Radiologic Technology program consists of two years of combined academic and clinical education, the equivalent of 21 calendar months. Clinical education is provided in cooperating hospitals. Of a 40-hour/week schedule, students spend approximately one-third of their time in professional and general education courses at the college, and the remaining two-thirds in the college laboratory or in the hospital.

Upon completion of the academic and clinical competencies required for the program, the graduate is eligible to sit for the examination of the American Registry of Radiologic Technologists for certification and New York State licensure.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

		Hours/Week Class	Lab	Hours/Semester Clinical	Credits/Semester
FIRST YEAR					
Fall Semester					
BIO 131	Human Biology I	3	2	0	4
ENG 110	College Writing I	3	0	0	3
RAD 100	Introduction to Clinical Education	3	0	0	3
RAD 130	*Intersession: Clinical Education			160	1
RAD 101	Image Production & Evaluation I	3	1	0	3
RAD 103	Positioning I	1	4	0	2
RAD 110	Patient Care	1	1	0	1
RAD 115	Radiation Protection I	1	0	0	1
		15	**8**	**160**	**18**
Spring Semester					
BIO 132	Human Biology II	3	2	0	4
CST 105	Computer Applications	2	2	0	3
SOC 111	Social Problems OR	3	0	0	3
SOS 120	Science, Technology & Society	3	0	0	3
RAD 102w	Image Production and Evaluation II	4	1	0	4
RAD 104	Positioning II	1	2	0	2
RAD 132	Clinical Education II	0	0	240	2
		13	**7**	**240**	**18**
Summer I					
RAD 133	Summer Clinical Education III	0	0	440	4
RAD 214	Sectional Anatomy	1	0	0	1
RAD 216	Imaging Modalities	1	0	0	1
		2	**0**	**440**	**6**
SECOND YEAR					
Fall Semester					
RAD 204	Advanced Positioning	1	2	0	2
RAD 201	Radiographic Equipment & Maintenance	3	0	0	3
RAD 220	Radiologic Pathology	2	0	0	2
RAD 230	Clinical Education IV	0	0	360	4
	*Intersession: Clinical Education			80	
ENG 220	Communicating About Ideas & Values	3	0	0	3
		9	**2**	**440**	**14**
Spring Semester					
PSY 110	General Psychology	3	0	0	3
RAD 225w	Advanced Imaging Procedures	3	0	0	3
RAD 232	Clinical Education V	0	0	360	3
RAD 245	Radiobiology	2	0	0	2
RAD 250	Quality Assurance	2	1	0	2
RAD 295	Seminar in Radiography	2	0	0	2
		12	**1**	**360**	**15**

Graduation Requirements: 71 Credits

Program supervised by:

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Curriculum Advisory Council: Radiologic Technology

NANCY BUTTON, R.T. (R) / Chairperson, Radiologic Technology Department, Broome Community College
GREG BRETZ, R.T. (R) / Cortland Memorial Hospital
MARK CARLSON, R.T. (R) / Lourdes Primary Care Center
DAVETTE CUMMINGS, R.T. (R) / Wilson Memorial Hospital
FRANK EMICK, R.T. (R) / UHS, Wilson Memorial Hospital
ELAINE FRISBEE, R.T. (R) / United Medical Associates
MARY HOLTHOUSE, R.T. (R) / Supervisor, Our Lady of Lourdes
CRAIG KICK, R.T. (R) / United Medical Associates
ROBERT KNACK, M.D. / Our Lady of Lourdes Hospital
PAUL LAWRENCE, R.T. (R) / Chenango Memorial Hospital
EDWIN LIS / Radiology Business Manager, Wilson Memorial Hospital
DAVID LISI, M.D. / Medical Advisor, UHS, Binghamton General Hospital
CAROL MacGEORGE, R.T. (R) / United Medical Associates
CONNIE MONDAY, R.T. (R) / Chenango Memorial Hospital
FREDERICK PFEIFFER, R.T. (R) / UHS, Binghamton General Hospital
BARBARA WETZEL, R.T. (R) / Park Avenue Associates in Radiology, PC
JAMES WILLIS, R.T. (R) / Mary Imogene Bassett Hospital
STUDENTS / appointed annually

For important general information regarding Health Science curricula see pages 10 and 22.

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*Two 40 hour weeks of clinical education during January. Successful achievement is a GRADUATION REQUIREMENT.

OSHA STANDARDS

Although not required by either Broome Community College or the State University of New York, students enrolled in health science programs, where clinical experience or on-campus Dental Clinic is a curriculum requirement, should note that compliance with the OSHA Bloodborne Pathogen Standards is mandated.

The OSHA standards on Exposure to Bloodborne Pathogens require employees to either be vaccinated for hepatitis or to sign the appropriate form declining the vaccination. The standards do not mention students. Nonetheless, many affiliate health agencies are requiring students to comply with the regulations, and hepatitis vaccinations are strongly recommended by most Health Science curricula.

Program supervised by:

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Telecommunications Technology

Associate in Applied Science

The telephone communications system that we use today, and often take for granted, is the largest and most complicated 'network' in the world. Any of millions of telephones can be instantly connected with another through the use of computers and switching circuitry. This vast network is supported by telecommunications technology.

Telecommunications includes the use of computer networks, satellite systems, and television, along with microwave communications. Telecommunications, then, includes any transmission of voice, data, video, facsimile, and computer information — even ATM banking machines.

The study of telecommunications begins with a strong understanding of DC and AC circuitry, modern analog and digital electronics, computer hardware and software, and mathematics, English, and Physics. Graduates of this program will be very familiar with telephone and computer networking, network management, transmission techniques, and computer languages.

All of today's industries require persons with knowledge of telecommunications. This is because all businesses must communicate internally and externally using voice, data, computer, and facsimile.

Telecommunications Technology at BCC is designed to prepare the student for immediate employment. In addition, transfer opportunities allow the graduate to continue study at a four-year institution.

This program may require longer than two years to complete if an entering student has not completed Math I, II, III, and physics in high school. Students lacking any of these courses enter the Pre-Telecommunications Technology program and may be required to take MAT 094 Algebra with Trig I to prepare for MAT 098 Algebra with Trig II and PHY 090 Preparatory Physics.

SEQUENCE OF COURSES: This model is a two-year course schedule for students meeting all program requirements and deciding to pursue full-time study. Schedules will be redesigned for those requiring preparatory courses or those deciding to pursue part-time study.

			HOURS/WEEK		CREDITS/SEMESTER
FIRST YEAR					
Fall Semester			Class	Lab	
TEC	100	Introduction to Technology	1	0	1/2
EET	111	Electrical Construction Laboratory I	1	3	2
EET	121	Electrical Circuits	4	3	5
CST	106	Computer Applications	2	2	3
ENG	110	College Writing I	3	0	3
MAT	150[1]	College Technical Mathematics	4	0	4
			15	**8**	**17-1/2**
Spring Semester					
TLC	101	Technology Orientation	0	1	.5
TLC	110	Telecommunications I - Voice Communications	4	0	4
CIV	113	Drawing with CAD	1	3	2
EET	150w	Electronic Devices	4	3	5
ENG	150	Technical Writing	3	0	3
MAT	160[1]	Applied Calculus	4	0	4
			16	**7**	**18.5**
SECOND YEAR					
Fall Semester					
EET	201	Senior Seminar	1	0	0
TLC	120	Telecommunications II - Data Communications	4	0	4
EET	251	Electronic Circuitry	3	3	4
EET	267	Digital Electronics and Microprocessors I	3	2	4
SOC		Social Science Elective	3	0	3
			14	**5**	**15**
Spring Semester					
EET	202	Senior Seminar	1	0	0
TLC	210	Telecommunications III - LANS	3	2	4
TLC	220	Telecommunications IV - Advanced Topics	3	2	4
EET	230	Electronic Design and Fabrication	0	3	1
PHY	161	Physics I	3	3	4
SOS	120	Science, Technology and Democratic Society	3	0	3
			14	**8**	**16**

Graduation Requirements: 67 Credits

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[1] Students should consult with the department chairperson or designee to determine the appropriate mathematics course.

Tourism Management

Associate in Applied Science

The Tourism Management degree program combines business courses with specialized courses in the travel and tourism industry. Students completing this curriculum are provided the business skills necessary to function in entry-level managerial positions in areas of the tourism industry such as destination planning, promotion and development, convention management and meeting planning, transportation, tour promotion, federal and state tourism offices, travel bureaus, sports marketing, recreation, and entertainment. (Tourism Management students are required to complete at least one internship through which they obtain relevant experience in one or more segments of the extensive network of industry in the travel and tourism field.)

The Travel Agent Career Training Sequence accommodates students whose career goals are positions in the travel agency segment. (Students who complete the Travel Training Sequence may apply all course credit from this sequence toward the A.A.S. degree in Tourism Management should they wish to pursue other avenues within the tourism industry.)

FIRST YEAR			HOURS/WEEK		CREDITS/SEMESTER
Fall Semester			Class	Lab	
BUS	108	Accounting for Service Business	4	0	4
BUS	107	Freshman Experience	1	0	1
BUS	112	Quantitative Business Methods	3	0	3
BUS	118	Business Law I	3	0	3
BUS	141	Marketing	3	0	3
ENG	110	College Writing I[2]	3	0	3
			17	**0**	**17**
Spring Semester					
BUS	181	The Internet with Bus. Applications or			
CST	105	Computer Applications	2-3	0-2	3
BUS	229	Advertising	4	0	4
BIT	101	Keyboarding	1	0	1
TTM	102*	Introduction to Travel & Tourism	3	0	3
GEO	120*	World Geography	3	0	3
BHM	125w*	Hospitality Law or			
BUS	120w	Business Law II	3	0	3
			16-17	**0-2**	**17**

SECOND YEAR					
Fall Semester					
BUS	152	Selling Fundamentals	3	0	3
ECO	110w	Microeconomics	3	0	3
TTM	117w*	Travel & Tourism Suppliers	3	0	3
TTM/BUS		Advisor-approved elective	3	0	0
TTM	260*	Destination/Convention Marketing & Management	3	0	3
MAT	113	Math Explorations (or > math course)	3	0	3
			18	**0**	**18**
Spring Semester					
TTM	298*	Tourism Internship	3	0	3
BUS/BHM		Advisor-approved elective	3	0	3
ENG		Advisor-approved ENG elective	3	0	3
SPK	110	Effective Speaking	3	0	3
TTM/BUS		Advisor-approved Elective	3	0	3
MAT/SCI		Elective	3	0	3
			18	**0**	**18**

Total Credits: 70

Travel Career Training Sequence

TTM	102*	Introduction to Travel and Tourism	3
TTM	117*	Travel and Tourism Suppliers	3
TTM	217*	Ticketing and Documentation	3
TTM	291*	Computerized Reservation Systems	3
		Total Credits	**12**

Students who complete this sequence will receive a certificate of completion in Travel Agent Career Training and may choose to apply all credit from this sequence toward an A.A.S. degree in Tourism Management.

Program supervised by:

Joan Bandurchin
Office: Business Building, Room B-234
Telephone: 607 778-5263
E-mail: bandurchin_j@sunybroome.edu

Membership of the Business Department Advisory Council consists of representatives from area organizations. Committee members serve on a rotating basis and are selected annually, with some members remaining on the council for multiple terms.

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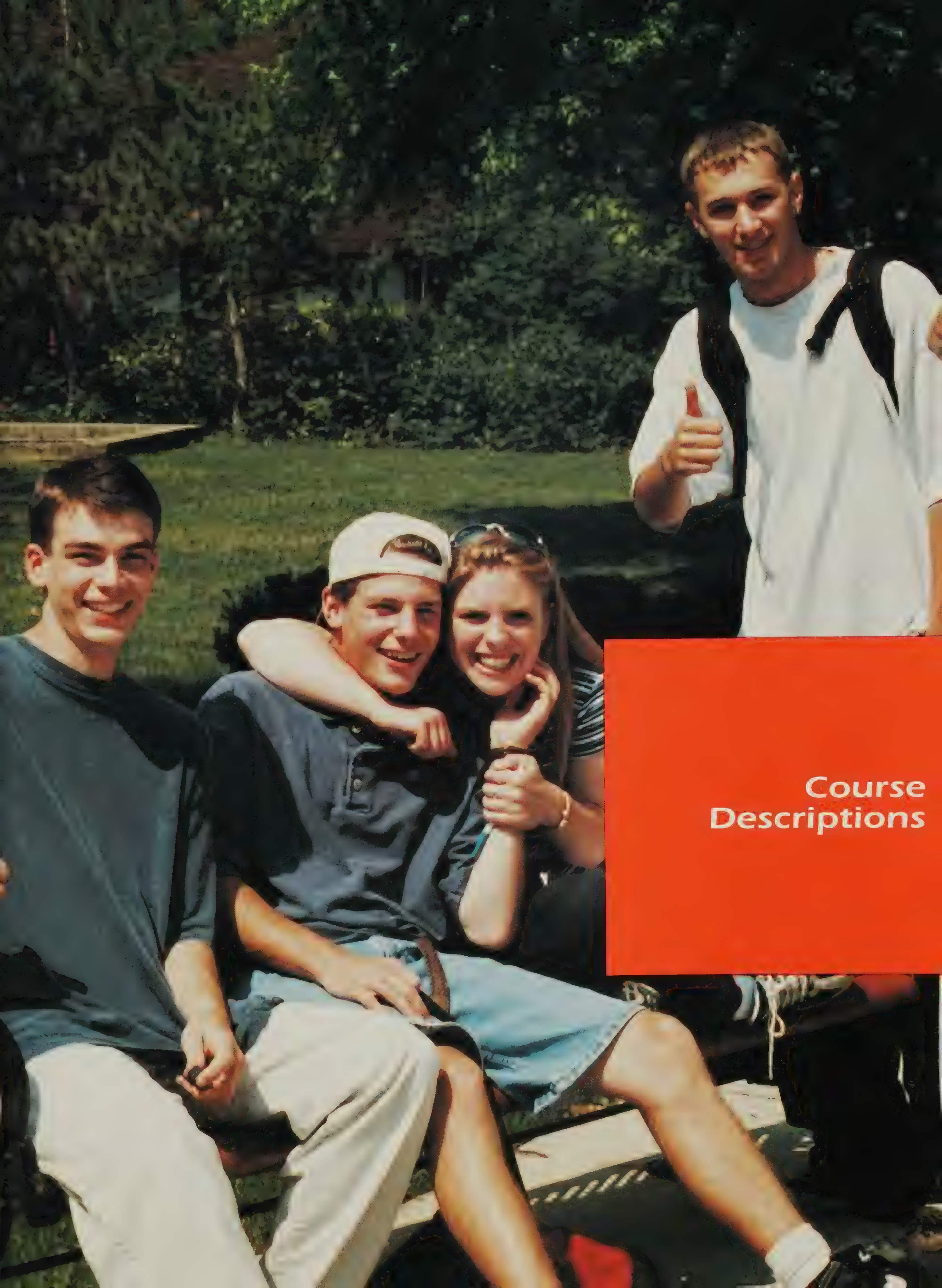
[1] Depending on Mathematics entrance testing scores and Math background, the student will take: MAT 090 and QBM or QBM or Introduction to Business.

[2] or ENG 111, based on placement tests.

*Take these courses in the semester (fall or spring) indicated. They may not be offered every semester.



Course Descriptions

Program-Identifying Numbers

State regulations require a listing of all curriculums, together with the degrees they lead to and their HEGIS code numbers. HEGIS stands for Higher Education General Information Survey, and the HEGIS numbers for each curriculum are official federal and state designations. Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain aid awards.

HEGIS	Degree	Curriculum
5001	CERT	Business Skills
5001	CERT	Desktop Publishing*
5001	CERT	Website Development and Management*
5002	AAS	Accounting
5004	AS	Business Administration
5004	AS	Healthcare Services Administration
5099	AS	International Business
5004	AAS	Marketing Management & Sales
5004	AS	Management*
5004	AAS	Manufacturing Resources Management
5004	CERT	Manufacturing Resources Management*
5004	CERT	Purchasing
5005	CERT	Office Technology
5005	AAS	Office Administration
5005	AAS	Business Information Management
5005	CERT	Records Information Management
5010	AAS	Hotel and Restaurant Management
5008	AS	Communication and Media Arts
5506	AS	Human Services (pending)
5506	AS	Human Services - Alcohol and Substance Abuse (pending)
5506	CERT	Human Services - Gerontology (pending)
5012	CERT	Interior Design
5099	CERT	Paralegal Assistant
5099	AAS	Paralegal
5099	AAS	Tourism Management
5101	AS	Computer Science
5104	AAS	Computer Technology
5203	AAS	Dental Hygiene
5205	AAS	Medical Laboratory Technology
5207	AAS	Radiologic Technology
5208	AAS	Nursing
5213	AAS	Health Information Technology
5214	AAS	Medical Assistant
5219	AAS	Physical Therapist Assistant
5299	AAS	Emergency Medical Technology - Paramedic
5305	AAS	Chemical Engineering Technology
5309	AAS	Civil Engineering Technology
5310	AAS	Electrical Engineering Technology
5310	AAS	Telecommunications Technology
5312	CERT	Industrial Technology - Quality Assurance
5312	AAS	Industrial Technology - Quality Assurance
5315	AAS	Mechancial Engineering Technology
5404	CERT	Dietary Manager
5503	CERT	Early Childhood
5503	AAS	Early Childhood
5505	CERT	Criminal Justice
5505	AAS	Criminal Justice - Police
5505	AS	Criminal Justice Corrections (pending)
5507	CERT	Fire Protection Technology
5507	AAS	Fire Protection Technology
0901	AS	Engineering Science
4901	CERT	Liberal Arts and Sciences
4901	AS	Liberal Arts and Sciences
4901	AA	Liberal Arts and Sciences
4901	AS	Liberal Arts: General Studies (pending)
4901	AS	Individual Studies
4901	AAS	Individual Studies

NOTE: "CERT" means "Certificate," not a degree.

*Pending approval

Course Descriptions

The offering of any course is subject to sufficient enrollment.

- Courses numbered from 100-199 are generally first level courses; those numbered 200-299 are usually second level.
- The number of credits is listed in parenthesis after the course title.
- The number of lecture and/or laboratory hours per week and any prerequisites are listed after the course descriptions.
- Courses are listed in alphabetical order by call letters.

Alcohol and Substance Abuse Counseling: ASA
Anthropology: ANT
Art: ART
Banking: BNK
Biology: BIO
Business: BUS
Business Information Management: BIM
Business Information Technology: BIT
Cardiopulmonary Resuscitation: HSV
Chemistry: CHM
Civil Engineering Technology: CIV
College: COL
Communications: COM
Community Internship: CTP
Computer Graphics: CAD
Computer Studies: CST
Criminal Justice: CRJ
Dental Hygiene: DEN
Dietary Manager: DIA
Direct Marketing: DMR
Early Childhood: ECE
Economics: ECO
Electrical Engineering Technology: EET
Emergency Medical Technician: EMT
Engineering Science: EGR
English: ENG, ESL
Fire Protection: FRS
French: FRE
Geography: GEO
German: GER
Health Care Management: HCM
Health Information: HIT
History: HIS
Hotel/Restaurant Management: BHM
Human Development: SAC
Humanities: HUM
Human Services: HMS
Interior Design: INT
Italian: ITA
Law/Paralegal: LAW
Learning Skills: LRS
Literature: LIT
Manufacturing Resources Management: MRP
Mathematics: MAT
Mechanical Engineering Technology: MET
Medical Assistant: MDA
Medical Laboratory: MLT
Music: MUS
Nursing: ADN
Paramedic: PMD
Philosophy: PHI
Physical Education: PED
Physical Science: PHS
Physical Therapist: PTA
Physics: PHY
Political Science: POS
Psychology: PSY
Quality Assurance: SQC
Radiologic: RAD
Reading Skills: RDG
Russian: RUS
Sign Language: HUS
Social Science: SOS
Sociology: SOC
Spanish: SPA
Speech: SPK
Student Affairs Course: SAC
Study Abroad: SAP/OP
Theater: THR
Travel and Tourism: TTM

- All courses marked (*) are taught evenings only and when enrollment permits
- All courses marked (†) carry separate grades for lecture and laboratory
- All courses marked (‡) are combined lecture-laboratory courses, and final grade depends on successful completion of both parts.

NURSING

ADN 105
Meeting Human Needs I (7)

The focus of this course is identifying and integrating the hierarchy of human needs into the nursing care of persons across the life cycle.

The philosophy of the program is introduced which includes our beliefs about human caring, the nature of human beings, health and nursing. Gordon's Eleven Functions of Man which provided the organizing structure of the nursing program is also introduced.

Emphasis is placed on health assessment, health promotion, and health maintenance related to self and others.

The nursing process is introduced as the modality through which critical thinking skills are applied in the delivery of care. Pharmacological concepts are introduced as they relate to healthy individuals across the life cycle.

The student provides care in a variety of settings with close supervision. The nursing roles of provider of care, manager of care, and member of the discipline of nursing are introduced.

4 Class Hours, 6 Clinical Hours, 2 Lab Hours.

ADN 106
Meeting Human Needs II (7)

The focus of this course is on the nursing care of persons who have actual/potential health problems related to the health patterns of Health Perception/Health Management, and Nutrition/Metabolic. Classroom theory and clinical practice integrate all 11 of Gordon's Functional Health Patterns.

Integrated in the course are our beliefs about human caring, the nature of human beings, health and nursing. The concepts of hierarchy of human needs and life cycle are applied to the nursing care of persons with common health problems.

The nursing process is utilized as the modality through which critical thinking skills are applied in the delivery of care.

Emphasis is placed on health assessment, health promotion, health restoration, and health maintenance.

The student provides nursing care with supervision in a variety of settings.The nursing roles of provider of care, manager of care and member of the discipline of nursing are further developed.

4 Class Hours, 6 Clinical Hours; 2 Laboratory Hours; Prerequisites: ADN 105 Meeting Human Needs I and BIO 131 Human BIO I. Pre- or Corequisite: BIO 132 Human BIO II.

ADN 111
Cultural Aspects of Health Care (2)

A complete global exploration of cultural and ethnic diversity as it relates to health and health care providers.

Concepts such as patient belief systems, health practices, illness management, mental health, communication, stereotyping, ethnocentrism and other culturally centered issues are examined.

Lectures and discussions encompass major concerns and issues encountered by the health care professional and patient alike. Recommended for all health professionals who plan to work in a multicultural society such as America.

2 Class Hours

ADN 112
Holistic Health (2)

This course is open to all majors and requires no prerequisite. Holistic health of ourselves is explored via investigation of the concepts of body, mind, spirit and emotions. Techniques for relaxation and/or guided imagery are offered daily. Lectures and discussions on stress management, meditation, exercise, nutrition and alternative perspectives regarding health management.

2 Class Hours

ADN 115
Power of Touch (3)

This course is open to all majors and has no prerequisite. Relaxation, guided imagery and centering exercises begin each class. Topics include: history and research of therapeutic touch, the Eastern concept of chakras. A basic technique of therapeutic touch is presented along with several variations. Other popular therapies which utilize touch will also be introduced.

3 Class Hours

ADN 211
Meeting Human Needs III (7)

The focus of this course is on the nursing care of persons who have actual/potential health problems related to health patterns of: Nutritional/Metabolic, Elimination, and Sexuality/Reproductive. Classroom theory and clinical practice integrate all 11 of Gordon's Functional Health Patterns.

Integrated in this course are our beliefs about human caring, the nature of human beings, health and nursing. The concepts of hierarchy of human needs and life cycle are applied to the nursing of persons with common health problems.

The nursing process is utilized as the modality through which critical thinking skills are applied in the delivery of care.

Emphasis is placed on health assessment, health promotion, health restoration and health maintenance. The student provides nursing care to persons in both specialty and general medical/surgical units, as well as in community settings. With increasing autonomy, students assume the role of: provider of care, manager of care, and member of the discipline of nursing.

4.5 Class Hours, 6 Clinical Hours; 1.5 Laboratory Hours; Prerequisites: ADN 106 Meeting Human Needs II, BIO 132 Human Biology II, ADN 105 Meeting Human Needs I, and PSY 210 Developmental Psychology.

ADN 212
Meeting Human Needs IV (7)

The focus of this course is on the nursing care of persons who have actual/potential health problems related to health patterns of: Activity/Exercise, Self-Perception, and Sleep/Rest. Classroom theory and clinical practice integrate all 11 of Gordon's Functional Health Patterns.

Integrated in this course are our beliefs about human caring, the nature of human beings, health and nursing. The concepts of hierarchy of human need and life cycle are applied to the nursing care of persons with common health problems.

The nursing process is utilized as the modality through which critical thinking skills are applied in the delivery of care.

Emphasis is placed on health assessment, health promotion, health restoration and health maintenance. The student provides nursing care to persons in both specialty and general medical/surgical units, as well as in commmunity settings. With increasing autonomy, students assume the role of: provider of care, manager of care, and member of the discipline of nursing.

4.5 Class Hours, 6 Clinical Hours; 1.5 Laboratory Hours; Prerequisites: ADN 106 Meeting Human Needs II, BIO 132 Human Biology II, ADN 105 Meeting Human Needs I, and PSY 210 Developmental Psychology.

ADN 213
Meeting Human Needs V (7)

The focus of this course is on the nursing care of persons who have actual/potential health problems related to the health patterns of: Activity/Exercise, Role/Relationship and Values and Beliefs. Classroom theory and clinical practice integrate all 11 of Gordon's Functional Health Patterns.

Integrated in this course are our beliefs about human caring, the nature of human beings, health and nursing. The concepts of hierarchy of human needs and life cycle are applied to the nurse care of persons with common health problems.

The nursing process is utilized as the modality through which critical thinking skills are applied in the delivery of care.

Emphasis is placed on health assessment, health promotion, health restoration and health maintenance. The student provides nursing care to persons in specialty and general medical/surgical units, as well as in commmunity settings. With increased autonomy, the students assume the roles of: provider of care, manager of care, and member of the discipline of nursing.

4.5 Class Hours, 6 Clinical Hours; 1.5 Laboratory Hours; Prerequisites: ADN 106 Meeting Human Needs II, BIO 132 Human Biology II, ADN 105 Meeting Human Needs I, and PSY 210 Developmental Psychology.

ADN 214
Meeting Human Needs VI (7)

The focus of this course is on the nursing care of person who have actual/potential health problems related to the health patterns of: Cognitive/Perceptual and Coping/Stress. Classroom theory and clinical practice integrate all 11 of Gordon's Functional Health Patterns.

Integrated in this course are our beliefs about human caring, the nature of human beings, health and nursing. The concepts of hierarchy of human needs and life cycle are applied to the nursing care of persons with common health problems.

The nursings process is utilized as the modality through which critical thinking skills are applied in the delivery of care.

Emphasis is placed on health assessment, health promotion, health restoration and health maintenance. The student provides nursing care to persons in specialty and general medical/surgical units, as well as in community settings. With increased autonomy, the students assume the role of: provider of care, manager of care, and member of the discipline of nursing.

4.5 Class Hours, 6 Clinical Hours; 1.5 Laboratory Hours; Prerequisites: ADN 106 Meeting Human Needs II, BIO 132 Human Biology II, ADN 105 Meeting Human Needs I, and PSY 210 Developmental Psychology.

ADN 298
Nursing Seminar (1)

The purpose of this course is to facilitate transition of returning, transfer and advanced placement students into the nursing program. The course focuses on the nursing department philosophy, the conceptual framework, the nursing process and use of the course syllabi. Students are required to practice and demonstrate selected nursing skills.

1 Class Hour, 1 Clinical Hour

Prerequisites: Students in this course must have met requirements for transfer or have passed the required challenge examination for advance placement.

ADN 299
Independent Study (1-3)

An individual student project in the nursing field which is beyond the scope of requirements of the courses offered by the department conducted under the direction of a nursing faculty member and approved by the department chairperson. Independent study is available to students who have completed one semester of Professional Nursing Courses.

ANTHROPOLOGY

ANT 110
Physical Anthropology and Archaeology (3)

Introduction to human evolution, variation and prehistory. The Darwinian Revolution, mechanisms of evolution, the fossil record, domestication of plants and animals, the origin of human civilization. Prehistory topics may include the Americas, Africa, the Middle East, Asia.

3 Class Hours

ANT 111
Cultural Anthropology (3)

Introduction to the study of culture as the behavioral adaptation unique to human societies. Cultural characteristics shared by all humans and major variations found among specific groups. Explanations for rules of social interaction in common activities, the social functions of institutions, language is a culturally defined system of communication, modernization in our own and third world societies.

3 Class Hours

ANT 299
Independent Study (1-3)

An individual student project in anthropology which is beyond the scope of requirements of the course offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisite: 3 Semester Hours in Anthropology.

ART

ART 102
History of Western Art I (3)

An overview of Western Art from 25,000 BC to about 1550 AD. Study of man's made objects, paintings, sculpture, drawings, graphics, ceramics and some architecture to reveal the relationships between these objects and the history of civilizations. Slide lecture format.

3 Class Hours

ART 103
History of Western Art II (3)

Survey of the visual arts in Western culture from the late Renaissance until the 1990s to reveal how art mirrors life and reflects its ideals. Special emphasis on American painting and sculpture. Slide lecture format and field trips.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

3 Class Hours

ART 104
History of Asian Art (3)

History of Asian Art is appropriate for all students who are interested in the cultural traditions and artistic expressions of Asian countries. This course presents a general survey of the development of Asian Art and Architectural forms in the Far East including India, Japan and China with supplementary study of Korea, Tibet, Indonesia, Burma and Thailand. Cultural traditions, especially Buddhism introduced. Prior experience in art history is not necessary. The format involves slide lecture, readings and class discussion.

ART 105
Introduction to Two-Dimensional Design (3)

Introduction to design involves the student with investigation of visual perception and organization. The student is expected to become more fully equipped to understand and work with design concepts through heightened physical and sensory awareness, experimentation with a variety of media and intellectual comprehension of text, lecture and visual examples. Line, spacial illusion, texture, color and form are explored.

2 Class Hours, 2 Studio Hours.

ART 106
Introduction to Three-Dimensional Design (3)

Developing sensitivity and awareness of our spatial environment is the object of this course. Aesthetic and functional elements of three-dimensional design are explored. Through reading, projects, lectures and field trips, techniques are explored to assist in heightening awareness. This enables the student to understand the functional and aesthetic examples of the three-dimensional environment. Emphasis is placed on studio projects.

2 Class Hours, 2 Studio Hours.

ART 108
History of Western Architecture I (3)

Overview of 40 centuries of building, beginning in Ancient Egypt. The student follows the political, technological, religious and social movements that have influenced the major design styles, outstanding architects and designer of each era until the end of the Renaissance (1650s). Slide-lecture format with site visits.

3 Class Hours

ART 109
History of Western Architecture II (3)

Overview of the history of buildings from the Baroque period (1650s) to the present. Students achieve an historical perspective on and understanding of the development and evolution of architectural design. Special emphasis is given to local buildings and their relationships to national styles.

3 Class Hours

ART 110
Modern Art (3)

Art of the late 19th century. Impressionism (circa 1870) to Cubism and other forms of abstract art. Panorama of 20th century visual movements including Futurism, Surrealism, Abstract Expressionism, Pop Art, and Post-Modernism. Slide/lecture format and field trips.

3 Class Hours

ART 111
History of Decorative Arts: 1600 - present (3)

Introduction to the development of style in fabric, furniture and accessories for the interior from 1600 to the present. Emphasis will be placed on the history of American interiors.

Required for interior design students, recommended for students in Art and Design and as an elective for students interested in history or American Studies.

ART 112
Beginning Photography (3)

Basics of camera design and operation, plus the fundamentals of photographic visualization and composition: line, form, color, light shadow. Darkroom procedures, film processing, basic printmaking, selecting printing techniques. (Students must have their own 35mm single lens reflex camera and should expect to pay for their own photographic materials — about $100+-.)

2 Class Hours, 2 Laboratory Hours.

ART 115
Beginning Drawing (3)

Intensive drawing instruction in charcoal, pencil, pen and ink, and mixed media. Still-life composition, use of formal art elements and some figure drawing.

6 Studio Hours

ART 116
Painting I (3)

Beginning painting instruction and practice of oil painting, still-life, landscapes.

6 Studio Hours; Prerequisite: ART 115 Drawing or portfolio review.

ART 125
Introduction to Computer Graphics (3)

This course is an introduction to computer graphics applications as a tool for designers and artists. Commercial applications will be used and demonstrated. Students are expected to produce original work that demonstrates the aesthetic elements of design in each application. Students should be familiar with basic art terminology and with computer keyboard and mouse. Previous art studio experience required.

Recommended: ART 105 or ART 115, and BIT 108 or equipment.

ART 130
Introduction to Ceramics: Construction and Glazes (3)

Study of the basic processes of design and creation of clay forms, both functional and sculptural. Techniques of handbuilding, throwing on the potter's wheel, glazing and firing will be explored.

Recommended: ART 106.

ART 140
Printmaking (3)

This three-part course will begin with an introduction to printmaking through the methods of collograph and monotype printing. Then linecuts and woodcuts will be developed, and there will be a concentration on the silkscreen process. The third part will be an historical survey of printmaking and its techniques. This will be accomplished through visits to local print collections.

6 Studio Hours; Prerequisite: ART 115 or ART 105 or portfolio review.

ART 150
Perspective Drawing (3)

Graphic techniques developed for visual presentation of architectural, industrial and aesthetic forms. Studio projects stress creation of the representational image using perspective, color, texture and light. Applicable to advertising and illustration of ideas and products.

2 Lecture Hours, 2 Lab Hours; Prerequisite: CIV 159 Basic Drafting or ART 115, Drawing.

ART 202
Commercial Photography (3)

Students will gain practical experience as to the theory behind and application of commercial photography and illustration. Projects will be relative to today's marketing and societal needs. Lighting and composition will be heavily stressed. Photographic format will be slide film. Prerequisite: Art 112 or Art 212 or by portfolio acceptance by instructor. Lab cost to student approx. $100 for supplies and processing.

2 Class Hours, 2 Lab Hours.

ART 212
Intermediate Photography (3)

Systems of precise exposure and processing control. Advanced black and white darkroom techniques. Introduction to color theory, processes and printing. Functional portfolio development. Introduction to digital electronic imaging. (Students must have their own 35mm single lens reflex camera and should expect to pay for their own photographic materials — about $100+-.)

2 Class Hours, 2 Laboratory Hours; Prerequisite: ART 112 or by portfolio acceptance and permission of instructor.

ART 213
Model Building (2)

Scale models built for specific design problems. Projects to include interiors, buildings, site plans, furniture, stage sets. Recommended for students interested in architecture, landscape design, and set design for theater. Required for interior students.

Prerequisite: ART 106 3-Dimensional Design and/or CIV 159.

ART 214
Internship (1-4)

Available to second-year Art and Design students with a faculty member's recommendation. Internship requirements will be developed on an individual basis with an art faculty member's supervision.

ART 215
Painting II (3)

Continuation of painting instruction and practice done in ART 116 Painting I.

6 Studio Hours; Prerequisite: ART 116 Painting I or portfolio review.

ART 216
Painting III (3)

Continuation of ART II. Individual projects and experimental approaches are emphasized.

ART 217
Advanced Drawing (3)

Advanced course presenting new media techniques and concepts; life drawing emphasized.

6 Studio Hours; Prerequisite: ART 115 Drawing or portfolio review.

Independent Study: Art (1-3)
ART 298 Studio Art
ART 299 Art History

An individual student project concerned with advanced work in a specific area of art. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 semester hours of college level work in Art.

ART 225
Illustration (3)

This course is directed towards the student pursuing an emphasis in graphic arts. It considers the drawn or painted image as a means of communication utilizing narrative imagery and pictorial illusion and space. Students will solve illustrative problems relating to magazine articles, posters, packaging, book covers, children's picture books, and other materials.

6 Studio Hours; Prerequisites: ART 105 Introduction to Two-Dimensional Design, ART 115 Beginning Drawing, and an art history elective.

ART 226
Advanced Computer Imagery (3)

A student of this course will further their abilities in PageMaker and develop techniques in various other image producing programs such as Illustrator, Photoshop, etc. The student will have the opportunity to develop a unique and individual visual sense in the digital domain. Through ever increasingly demanding visual problems the student will become more aware of the critical thinking and creative problem solving skills necessary in the graphic arts profession. Throughout the course, the student will draw on their skills gained in other studio art courses and their knowledge of art and aesthetic history. In addition, valuable knowledge in digital printing, the printing industry, and electronic graphics will be gained, as well as information in career opportunities in graphic design, illustration, computer graphics, special effects graphics, animation, and etc.

Required course for students choosing the Graphic Arts emphasis, Elective for other students. Prerequisites: ART 125, Intro. to Computer Graphics, and ART 225, Illustration.

ALCOHOL AND SUBSTANCE ABUSE COUNSELING

ASA 110
Introduction to Chemical Dependency Studies (3)

This course provides an introduction to the physical, psychological, social, familial and legal aspects of chemical abuse. The chemistry, psychopharmacology, theories and stages of addiction will be introduced and explored. Relevant history, problems of special populations of addicted clients and contributions of 12 Step Programs will be reviewed. Treatment approaches will be included but are dealt with more extensively in other courses in the ASA curriculum.

Prerequisite: none.

ASA 210
Chemical Dependency Counseling I (3)

This course identifies the uniqueness of chemical dependency counseling by examining concepts, issues and skills required to provide basic group therapy for chemically dependent persons. Group norms, goals, content, process, stages of group growth, group curative factor's, group principles and issues/problems of group dynamics are explored.

Prerequisite: ASA-110, PSY-217 as either prerequisite or corequisite.

ASA 220
Chemical Dependency (3)

This course builds on concepts from ASA 210. Eight approaches to individual (and group) counseling: Person-centered, Behavioral, Reality, Gestalt, Rational-Emotive, Transactional Analysis, Cognitive, and Spiritual approaches will be explored in the context of a model of addiction recovery. Ethical standards and practices are reviewed relative to chemical dependency counseling. Relationship between eight approaches and 12-step programs, early intervention strategies, cross addiction, dual diagnosis, relapse prevention are introduced.

Prerequisite: ASA 110, PSY 217 as prerequisite or corequisite.

ASA-230
Family Issues in Chemical Dependency (3)

This course is designed to analyze the effects of chemical abuse on the family. Emphasis will be placed on family roles, dynamics, characteristics of children of chemical abusers, theories of co-dependence, adult children of such families and adaptations made individually and socially by family members. Critical issues and strategies in family treatment will be explored.

Prerequisite: ASA-110.

ASA-240
Special Topics in Chemical Dependency (3)

This course is designed to provide an overview of topics of special interest and relevance to the field of addiction. Topics may change from semester to semester; researching and learning about new/special topics is encouraged. The course will also regularly examine the special problems and issues of selected client groups in treatment and recovery, e.g. children/adolescents, women, the elderly, gay and lesbian, dually diagnosed, relapse and cross cultural issues.

Prerequisites: ASA-110, 210 and 220 or permission of Instructor.

ASA 310, 320
Supervised Clinical Internships (4)

Two semesters of practicum, under supervision, in a chemical dependency treatment facility is required to expose the student to the work of such facilities and to sensitize the student to the prevention, clinical, and documentation work and skills of the profession. The student enters the field work as an intern and is subject to all legal, ethical, and professional standards required of staff members. Placement may be in rehabilitation programs, detox units, prisons, hospitals, public school prevention programs/education programs, crisis centers, clinics or other recognized facilities designated for the education, prevention, or treatment of chemically dependent persons. A primary goal of the internship(s) is to evaluate the student under actual working conditions to ascertain readiness for clinical work in the field.

Prerequisite for ASA 310: ASA 110, 210, 220

Prerequisite for ASA 320: ASA 110, 210, 220, 310

ASA 250
Ethical Principles/Practices in Chemical Dependency Treatment (1)

This 5 week module will cover the content required for the Certified Alcohol and Substance Abuse Counselor (CASAC) credentialing process. The focus will be on the chemically dependent population and the ethical considerations related to the treatment environment. The student will gain knowledge of the Canon of Ethical Principles. In addition to the Canon, topics wil include: counselors in recovery, counselor relapse, countertransference, confidentiality and the law, sexual harassment, client-counselor relationships, and ethics in the workplace.

Prerequisite: None.

ASA 255
Chemical Dependency and the HIV/AIDS Population (1)

This 5 week module will expose students to the application of principles of chemical dependency theory and practice to the HIV/AIDS population. The unique needs of this client group require special consideration in adapting treatment. Focus will also include tuberculosis and federal law pertaining to HIV/AIDS information and confidentiality issues.

Prerequisite: ASA 110, 210, 220, 230 or Permission of Instructor.

ASA 260
Pharmacology (1)

This 5 week module will address basic pharmacology, e.g., bioavailability, dosage, synergism, classification of substances, and schedules. In particular, medications (particularly prescription medications) which are commonly abused and have potential for dependence, will be addressed.

Prerequisite: None.

HOTEL/RESTAURANT MANAGEMENT

BHM 110
Sanitation and Safety (3)

A course in the fundamentals of restaurant and hotel organization and sanitation. In this certification course the student will learn the control points in food service, the importance of sanitation, and safety procedures.

3 Class Hours

BHM 111
The Challenges of Food Safety (1)

Covers the challenges of providing healthy food. More specifically, the biological hazards presented by disease-causing micro-organisms such as bacteria, viruses, parasites and fungi will be discussed. Included is discussion on news-making foodborne illnesses such as e-Coli, hepatitis A, salmonellosis and botulinum.

1 Class Hour

BHM 112
Establishing a Foodservice Safety System (1)

Covers the flow of food through various stages of preparation from purchasing to consumption., Cleaning and sanitizing, organizing a cleaning program, HACCP, integrated pest management, crisis management and dealing with government imposed sanitation regulations and standards will be discussed. Those individuals who have completed BHM 111 will, upon completion of this course, be eligible to sit for the Applied Foodservice Sanitation certification exam offered by the Educational Foundation of the National Restaurant Association.

1 Class Hour

BHM 125W
Hospitality Law (3)

A study of the legal principles governing hospitality operations including: common law, contracts, laws of tort and negligence, hotel-guest relationship, laws regarding food, food service and alcoholic beverages and employment laws.

3 Class Hours; Prerequisite: BUS 118.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

BHM 165
Hotel and Restaurant Purchasing (3)

This course will focus on the concept of selection and procurement, distribution systems and forces affecting the purchasing function. Some of the topics to be covered include: the organization and administration of purchasing, purchasing specifications, receiving procedures, typical storage management procedures, security, services, and purchasing of furniture, fixtures and equipment.

3 Class Hours

BHM 201
Hotel/Restaurant Internship I (3)

Career-related employment in the hospitality industry focusing on an area of interest in a hotel or restaurant. The intern will experience the opportunity to apply the theory learned in the program within a hospitality business setting. First year course work must be completed.

3 Class Hours; Prerequisite: 30 credit hours sucessfully completed toward Hotel/Restaurant Management degree.

BHM 216
Quantity Food Production (3)

This course focuses on the theory and practice of cooking methods such as frying, roasting, broiling, griddle work, poaching and sauteing, with a basic understanding of use and care of kitchen equipment. Some items to be prepared by the student include: stocks, sauces, soups, vegetables, appetizers, sandwiches, salads, dairy products, meat, poultry, seafood, international dishes and basic bakery products.

1 Class Hour, 6 Lab Hours; Prerequisite: BHM 110.

BHM 230
Front Office Operations Management (4)

A study of the importance of guest service, communications with one front office and other departments, reservation systems, registration techniques, and safety and security. Accounting and night audit, reports and yield management will also be covered. A computerized front office simulation will be used in this class.

4 Class Hours; Prerequisite: BUS 108 - Accounting Services Business, BUS 112 - QBM, Designated Computer Elective

BHM 235
Hotel and Restaurant Cost Control (4)

This course presents practical techniques for protecting hospitality establishments profits. Covering a broad area of controls over food, beverage and labor areas, this course builds a sound foundation of concepts and applications of management cost control procedures. Computer spread sheet applications software will be used in class.

4 Class Hours; Prerequisites: BUS 100, BUS 112.

BHM 270
Hospitality Managerial Accounting (3)

This course provides students with a basis for planning and protecting a hospitality operation's financial success. Covers methods of financial analysis, forecasting, and budget and cost management.

3 Class Hours; Prerequisite: BHM 235.

BHM 297
Hotel/Restaurant Internship II (3)

Career-related employment in the hospitality industry focusing on an area of interest in a hotel or restaurant. The intern will experience the opportunity to apply the theory learned in the program within a hospitality business setting. Senior status.

3 Class Hours; Prerequisite: BHM 201.

BUSINESS INFORMATION MANAGEMENT

BIM 100
Introduction to Business Information Management (3)

Concepts of database management as applied to database software and the world wide web.

3 Class Hours

BIM 101
File Classifications System (1)

Application of ARMA simplified alphabetic filing rules. Comparison of alphabetic, subject, numeric and geographic classification systems.

1 Class Hour

BIM 102
Introduction to Database Management (1)

The student will study file classification systems, files management, and concepts of database management.

BIM 103
Advanced Database Management (1)

Organization of report data, linking tables and preparation of multi-table reports applicable to business-related documents.

1 Class Hour; Prerequisite: RIM 102 Introduction to Records Management Using dBase.

BIM 110
Systems and Procedures in Business Records Management (3)

Establishing and maintaining an effective records management program. Emphasis on policies, practices, and technologies.

3 Class Hours

BIM 111
The Records Management Professional (1)

Establishment, organization and staffing of records management systems.

1 Class Hour

BIM 112
Records Analysis (1)

Procedures for inventory, analysis, retention, disposition, and protection of records.

1 Class Hour

BIM 113
Archival Functions (1)

Identification and prerservation of vital records.

1 Class Hour

BIM 200
Business Records Management Technologies (3)

This course introduces students to the following functions of Records/Information Management: Forms Management, Disaster Prevention and Recovery, Micrographics, Optical Disk Technology and Reprographics.

3 Class Hours

BIM 201
Disaster Prevention & Recovery (1)

Preparation and development of strategies for resumption of business operations following calamity.

1 Class Hour

BIM 202
Technology of Information Management (1)

Application of micrographics, reprographics, and forms management to records management systems.

1 Class Hour

BIM 203
Electronic Document and Imaging Systems (1)

Application of electronic storage and retrieval systems functions to the field of records management.

1 Class Hour

BIM 290
Special Topics in BIM (1-3)

Topics in this course will acquaint students with current advances and techniques in records and information management technologies. Course topics may include: Geographic Information Systems, Imaging Data Base Systems, Smart Courtrooms.

1-3 Class Hours; Prerequisite: Department Approval.

BIM 297
Internship (1-3)

Students receive career-related on-the-job experience in records and information management. Cooperative work experience students will meet with the internship coordinator as scheduled.

Prerequisite: BIM 100, BIM 110, BIM 200.

BIM 299
Independent Study (1-4)

Under the guidance of a faculty member, the student will undertake a study, project, or research involving an advanced concept or problem relating to his/her major field of study. Only one independent study course is allowed per semester.

1-4 Class Hours; Prerequisite: Approval of faculty member and Department Chairperson.

BIOLOGY

BIO 090
Preparatory Biology (0)

A preparatory course for students with no previous biology or laboratory science experience and for students needing additional background. Especially for prospective health science students. Register with advisement only.

3 Lecture Hours, 3 Laboratory Hours.

BIO 111
General Biology I (4)

Principles of evolution and ecology as unifying themes in biology. Evolutionary processes and ecological adaptations illustrated by plant and animal diversity. Cellular life processes. Current environmental problems. The laboratory includes physically demanding field trips. Accommodations can be made for students with disabilities.

3 Class Hours, 3 Laboratory Hours.

BIO 112
General Biology II (4)

Principles of evolution and ecology as unifying themes in biology. The human animal and its systems. Concepts of animal behavior. Classical genetics, current concepts of gene function and human genetics. Organismal growth and development. Current environmental problems. The laboratory includes physically demanding field trips. Accommodations can be made for students with disabilities.

3 Class Hours, 3 Laboratory Hours.

BIO 115

Ecology of the National Parks: Our Living Heritage

A biological survey of our National Park System concentrating on the variety of ways living organisms respond and adapt to meteorological, geological and ecological pressure.

3 Class Hours, 3 Laboratory Hours.

BIO 120

Human Sexuality (3)

Explores information about sexual attitudes, relationships, sexual anatomy, contraception, sexually transmitted disease, sexual physiology and dysfunction. Course aims to make students feel more comfortable thinking and talking about sex and to prepare them to make rational decisions about this important aspect of their lives.

3 Class Hours

BIO 131

Human Biology I (4)

Normal structure (gross and microscopic) and function of the skeletal, muscular and nervous systems. Emphasis on physiology in lectures and on anatomy in laboratory, stressing those aspects which have greatest relevance to the student's curriculum.

3 Class Hours, 2 Laboratory Hours.

BIO 132

Human Biology II (4)

A continuation of BIO 131 Human Biology I covering the circulatory, respiratory, digestive, urinary, reproductive and endocrine systems. Emphasis on physiology in lectures and on anatomy in laboratory, stressing those aspects which have greatest relevance to the student's curriculum.

3 Class Hours, 2 Laboratory Hours; Prerequisite: BIO 131 Human Biology I or permission of chairperson.

BIO 140

Pathophysiology (3)

Symptoms, syndrome and etiology of pathogenic processes affecting the function and structure of the body.

3 Class Hours; Prerequisite: BIO 132 Human Biology or permission of chairperson.

BIO 150

Microbiology (4)

The biology of the common bacteria and related microorganisms. General microbiology including asepsis, disinfection, sterilization, cultivation, pathogenicity, resistance, identification.

3 Class Hours, 3 Laboratory Hours.

BIO 151

Aquatic Biology (4)

A study of how light, temperatures and water chemistry influence the plants and animals which live in ponds, lakes, rivers and estuaries. Current and future ecology. Local, regional and national weather-related problems including pollution, waste water treatment, ground water contamination, acid rain, water recycling, salt water encroachment, wetland destruction.

3 Class Hours, 2 Laboratory Hours.

BIO 171

Physiology of Exercise (1)

Designed to develop an understanding and appreciation for the role of consistent exercise in maintaining good health, the interrelationship of the muscular, cardiovascular, respiratory and digestive systems and the net effect of training on these systems.

1 Class Hour

BIO 172-180

Special Topics in Biology (1-2)

Special courses covering particular topics in the biological sciences beyond the scope of the normal course offerings.

Permission of Department Chairperson.

BIO 200

Ecology: The Everglades (4)

A scientific yet sensitive look at one of the world's rare and endangered wilderness areas. Everglades ecology is studied through an extensive wilderness camping experience in Everglades National Park, involving a minimum of 90 hours of classroom and field instruction. Offered during the January Intermission.

3 Class Hours, 3 Laboratory Hours; Prerequisite: BIO 111 or equivalent; permission of Department Chairperson.

BIO 202

Biology Seminar (1)

The course is designed specifically for students interested in pursuing careers in the biological sciences. Students will be asked to critically analyze both current and historical readings, experiments and controversial topics within the field. An emphasis will be placed on showing the special niche of the biological sciences within the context of both the physical and social sciences. A weekend field trip is required.

1 Class Hour; Prerequisites: BIO 111 and 112 or equivalent; permission of Department Chairperson.

BIO 299

Independent Study (1-3)

An individual student project in a biological field which is beyond the scope of requirements of the courses offered by the department. Conducted under the direction of a Biology faculty member. Only one independent study course allowed per semester.

1 - 3 Class Hours; Prerequisites: 3 semester hours of college level work in biology and approval of Department Chairperson.

BUSINESS INFORMATION TECHNOLOGY

BIT 100

Keyboarding (3)

Development of basic keyboarding techniques and skill building activities in order to attain speed and accuracy in keying exact copy by touch for five minutes with a maximum of five errors. Basic word processing functions.

3 Class Hours; Prerequisite: For international students, ENG 107 - English as a Second Language or permission of instructor.

BIT 101

Computer Keyboarding (1)

Development of basic skills in keying exact copy by touch for three minutes with a maximum of three errors on a personal computer.

1 Class Hour

BIT 102

Keyboarding Skill Development (1)

Continued development of skills in keying exact copy by touch. Activities will be self-paced to allow for individual goals.

1 Class Hour; Prerequisite: BIT 101 Computer Keyboarding or equivalent.

BIT 103

Keyboarding Production Development (1)

Development of basic techniques in preparing letters, horizontal and vertical centering exercises, memorandums, tabulations, and manuscripts.

1 Class Hour; Prerequisite: BIT 102 Keyboarding Skill Development or the equivalent.

BIT 104

Keyboarding Speed Development (1)

Individualized goal setting for reaching speed and accuracy standard necessary for entry-level employment.

1 Class Hour; Prerequisite BIT 100 Keyboarding or equivalent.

BIT 108

Introduction to the PC and Windows (1)

Use of Windows and its graphical user interface to communicate with personal computers. Apply Windows features, concepts, applications, and procedures.

1 Class Hour; Prerequisite: Keyboarding speed of 20 wam recommended.

BIT 110

Business English (3)

Comprehensive instruction in the use of reference materials and correct language usage. Students will have the opportunity to develop proficiency in correct usage of English grammar, punctuation, capitalization, and number style. Instruction in use and application of reference manual information.

3 Class Hours

BIT 114

Grammar Update (1)

To review basic sentence structure, grammar, business vocabulary and punctuation as related to the business world. Does not correlate with any one 5-week segment of BIT 110.

1 Class Hour

BIT 120

Document Formatting (3)

Introduction to general, medical, and legal vocabulary and the techniques of keyboarding documents for general, medical, and legal offices.

3 Class Hours; Prerequisite: BIT 100 or the equivalent.

BIT 121

Executive Document Formatting (1)

Introduction to general business vocabulary and the techniques of keyboarding general business documents including those from insurance, finance, and real estate offices.

1 Class Hour; Prerequisite: BIT 100 or the equivalent.

BIT 122

Medical Document Formatting (1)

Introduction to medical terminology and the techniques of keyboarding medical documents.

1 Class Hour; Prerequisite: BIT 100 or the equivalent.

BIT 123

Legal Document Formatting (1)

Introduction to legal terminology and the techniques of keyboarding legal documents.

1 Class Hour; Prerequisite: BIT 100 or the equivalent.

BIT 130

Word Processing Applications (3)

Continuation of speed and accuracy development.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

Advanced word processing functions using professional word processing software.

3 Class Hours; Prerequisite: BIT 100 Keyboarding or equivalent.

BIT 131
Introduction to Word Processing (1)

Basic document formatting using a full-featured word processing package.

1 Class Hour; Prerequisite: BIT 100 Keyboarding or ability to key exact copy by touch at 36 net words per minute for five minutes with maximum of five errors.

BIT 132
Intermediate Word Processing (1)

Use of text editing features to create common office documents.

1 Class Hour; Prerequisite: BIT 131 Introduction to Word Processing.

BIT 133
Advanced Word Processing (1)

Use of advanced text editing features to enhance document preparation.

1 Class Hour; Prerequisite: BIT 132 Intermediate Word Processing.

BIT 134
Intermediate Word Processing (1)
Advanced Speed Development (1)

Individual achievement of speed and accuracy goals necessary to accompany word processing skills needed for the workplace.

1 Class Hour; Prerequisite: BIT 130 Word Processing Applications or Departmental Approval.

BIT 140W
Business Communications (3)

Instruction in communicating effectively in a business environment. Students will have the opportunity to develop proficiency in writing effective sentences, paragraphs, and various types of business communications including memorandums, letters, outlines, and reports.

3 Class Hours; Prerequisite for BIT majors: BIT 110.

BIT 144
Business Writing (1)

This one-credit course offers instruction in both basic and advanced writing techniques applied to business communication. Students will write letters of requests and directions, letters of persuasion, and responses to requests or directions. Editing for grammar, spelling, tone, and organization will also be covered. Does not correlate with any one 5-week segment of BIT 140.

1 Class Hour

BIT 153
Notetaking (3)

A one-semester course designed to develop basic techniques in notetaking skills.

3 Credit Hours

BIT 160
Intro to Computerized Financial Information Processing (1)

Students will learn to utilize a PC and selected software to process personal financial information in order to prepare a budget, checks and a check register, bank reconciliation statement, determine the savings of purchasing with cash, and compute and prepare simple tax forms.

1 Class Hour; Prerequisite: BIT 101 or the equivalent.

BIT 169
Mastering the Internet and the WWW (3)

This course is ideal for students in a broad range of disciplines who wish to become acquainted with the Internet and the world wide web. Develop the knowledge and skills necessary to send and receive e-mail messages, access the internet, use a graphical browser, transfer and manage files, experience various resource discovery and information retrieval tools, and compile reports that includes images and text. Complete your reports with references cited using the latest information from the online MLA or APA style manuals. Explore the technical requirements for a home system and the impact the Internet has made on society. Get ready to become part of the Internet community by designing and creating a personal web page.

3 Class Hours; Prerequisite: BIT 101 Computer Keyboarding or the equivalent.

BIT 170
Introduction to the Internet (1)

Travel the information superhighway with skills taught in this course. You will learn to send and receive e-mail messages, access the internet, search for and retrieve information, and use a graphical browser.

1 Class Hour; Prerequisite: BIT 101 Computer Keyboarding or the equivalent.

BIT 171
Internet-Based Research (1)

Exploration of additional Internet resources. Hands-on experience with various resource discovery and information retrieval tools.

1 Class Hour; Prerequisite: BIT 170 Introduction to the Internet or the equivalent.

BIT 172
Creating Personal Web Pages (1)

Learn the basics of designing and creating your own web page using the composer feature of a popular web browser. Enhance your web page by incorporating images you create with the use of a digital camera and scanner.

1 Class Hour; Prerequisite: BIT 170 Introduction to the Internet or equivalent.

BIT 173
Basics of Website Creation (3)

Potential web authors should start here! Develop the foundation for website creation including HTML, web graphics, and basic web editors. Understand the tools needed to incorporate animation, image maps, slide shows, and more into your web documents. Apply what you have learned to the creation of a website as a final project.

3 Class Hours; Prerequisite: BIT 170 Introduction to the Internet or the equivalent.

BIT 174
Introduction to HTML (1)

Learn the basics of designing and creating a web page using a simple HTML Editor.

1 Class Hour; Prerequisite: BIT 170 Introduction to the Internet or the equivalent.

BIT 175
Web Graphics (1)

Learn to create dynamic graphics for the world wide web. Graphics design and image creation using popular applications software will be emphasized.

1 Class Hour; Prerequisite: BIT 174 Introduction to HTML or the equivalent.

BIT 176
Using Web Editors (1)

An introduction to WYSIWYG editors that allows students to deal with HTML on a design level rather than a technical one. Students will learn the features of a web page editor and how the program can help them design more quickly and efficiently. Bring together skills learned in BIT 174 Introduction to HTML and BIT 175 Web Graphics to spice up your web pages.

1 Class Hour; Prerequisite: BIT 174 Introduction to HTML and BIT 175 Web Graphics or the equivalent.

BIT 180
Computers and Communications (3)

An introduction to the computer skills and knowledge vital for individuals pursuing a career in Communications. A variety of software will be used. Students will be exposed to the PC and windows environment, the Internet, web page design, and computer graphics. Scanning and digitizing photographs will be introduced.

Class Hours: 3

BIT 182
Designing Effective Web Pages (3)

Experienced web designers will enhance their ability to create attractive, useful web sites by exploring the elements of good design. Issues such as audience identification, clarification of need, development of content, efficiency in use of files based on type and size, and an introduction to human factors in improving design will be explored. A popular commercial web authoring package will be used to create an attractive and effective web site as a final project.

3 Class Hours; Prerequisite: BIT 173 Basics of Website Creation, or BIT 176 Using Web Editors, or the equivalent.

BIT 185
Software Tools for Web/Print Publishers (3)

An introduction to the software tools of choice used by print and web publishers. Students will learn to create, scan, and edit images and text for print, multimedia, and the web. Emphasis will be placed on drag-and-drop software integration. Combining video, still images and graphics will also be introduced.

3 Class Hours

BIT 186
Interactive Websites (3)

Keep visitors returning to your website by adding interactivity to your pages. Understand if, when, and how to incorporate JavaScripts, Java Applets, CGI, and Dynamic HTML. Designing for full accessibility and validating web pages will be stressed. Create an interactive website as a final project.

3 Class Hours; Prerequisite: BIT 173 Basics of Website Creation, or BIT 176 Using Web Editors, or the equivalent.

BIT 187
Introduction to JavaScript (1)

An introduction to the JavaScript programming language with an emphasis on enhancing the functionality of web pages. Students will learn to locate and customize existing JavaScript examples for their own use. Students will incorporate JavaScript programs in their own web pages.

1 Class Hour; Prerequisite BIT 173 Basics of Website Creation, or BIT 176 Using Web Editors, or the equivalent.

BIT 188
Dynamic HTML (1)

An introduction to the use of Dynamic HTML to create web pages that are highly visual, animated, interactive, and programmed to respond to the surfer's platform and actions. Three technologies that make up Dynamic HTML will be covered: Cascading Style

Sheets and CSS-Positioning, Active Scripts, and Document Object Model (DOM). These technologies will be used to create and change HTML elements "on the fly" after the page has been displayed.

1 Class Hour; Prerequisite: BIT 173 Basics of Website Creation, or BIT 176 Using Web Editors, or the equivalent.

BIT 189
Advanced Web Page Creation (1)

This course will be project-oriented and will give the web designer the opportunity to enhance their web designs through "smart programming," multimedia and interactivity based upon the concepts learned in previous courses. Designing for full accessibility and validating web pages will be stressed. Getting connected, publishing a website, and orienting the site for business will be covered.

1 Class Hour; Prerequisite: BIT 187 Introduction to JavaScript and BIT 188 Dynamic HTML or the equivalent.

BIT 197
Cooperative Work Experience (1-3)

Cooperative work experience is provided for individuals pursuing a certificate program through the Business Information Technology department. On-the-job experience will be related to specific educational background and career goals of the student. Opportunities will be available in a variety of areas. Cooperative Work Experience students will meet with the coordinator on a regular basis.

3 Class Hours; Prerequisite: 12 earned credits in the department, a G.P.A. of 2.5 and departmental approval.

BIT 200
Speadsheets with Business Applications (3)

Creation of spreadsheets, use of database functions, and preparation of charts, using functions and features appropriate for business documents.

3 Class Hours; Prequisite: BIT 101 Computer Keyboarding or the equivalent.

BIT 201
Introduction to Spreadsheets (1)

Use of basic spreadsheet functions for business-related applications.

1 Class Hour; Prerequisite: BIT 101 Computer Keyboarding or the equivalent.

BIT 202
Intermediate Spreadsheets (1)

Use of spreadsheet and chart functions for business-related applications.

1 Class Hour; Prerequisite: BIT 201 Introduction to Spreadsheets.

BIT 203
Advanced Spreadsheets (1)

Use of advanced features to enhance business-related applications for database, spreadsheets, and charting functions.

1 Class Hour; Prerequisite: BIT 202 Intermediate Spreadsheets.

BIT 210
Machine Transcription (3)

Emphasis on increasing skill in proofreading and editing a variety of documents and transcribing recorded materials as applied to general, medical and legal offices. Continuing development of knowledge of business vocabulary, grammar usage, punctuation, and spelling.

3 Class Hours; Prerequisites: BIT 110 Basic Transcription and BIT 130.

BIT 211
Executive Machine Transcription (1)

Emphasis on increasing skill in transcribing recorded materials. Continuing development of knowledge of business vocabulary, grammar usage, punctuation, and spelling.

1 Class Hour; Prerequisite: Keyboarding/Word Processing familiarity.

BIT 212
Legal Machine Transcription (1)

Emphasis on increasing skills in transcribing recorded materials as applied to law offices. Continuing development of knowledge of legal terminology, grammar usage, punctuation, and spelling.

1 Class Hour; Prerequisite: Keyboarding/Word Processing familiarity.

BIT 213
Medical Machine Transcription (1)

Emphasis on increasing skills in transcribing recorded materials as applied to medical offices. Continuing development of knowledge of medical terminology, grammar usage, punctuation, and spelling.

1 Class Hour; Prerequisite: Keyboarding/Word Processing familiarity.

BIT 214
Proofreading/Editing

Emphasis on increasing skill in proofreading/editing a variety of business documents. Continuing development of knowledge of business vocabulary, grammar usiage, punctuation, and spelling.

1 Class Hour; Prerequisite: Keyboarding/Word Processing familiarity.

BIT 240
Desktop Publishing Using PageMaker (3)

Become familiar with graphic design techniques, principles of page layout and design, and desktop publishing terminology and applications. Create a variety of documents such as flyers, brochures, newsletters and business cards. Become familiar with style sheets, templates, and importing material created in other software programs.

3 Class Hours; Prerequisite: BIT 101 Keyboarding or the equivalent.

BIT 241
Intro to Desktop Publishing Using PageMaker (1)

Use a professional desktop publishing package to design, create, and print a one-page flyer, letter, envelope, and business card. You will combine both text and graphics in the creation of these publications.

1 Class Hour; Prerequisite: BIT 101 or the equivalent.

BIT 242
Intermediate Desktop Publishing Using PageMaker (1)

Become familiar with templates, indents, and tabs. Combine graphics and text to create a trifold brochure and a newsletter. The planning and design phases will be emphasized and the final output will be to a laser printer.

1 Class Hour; Prerequisite: BIT 241 or the equivalent.

BIT 243
Advanced Desktop Publishing Using PageMaker (1)

Master style sheets and learn to prepare output on both hard copy and disks to be sent to a service bureau. Create menus and reports that contain both embedded and linked objects. The planning and design phases will be emphasized.

1 Class Hour; Prerequisite: BIT 242 or the equivalent.

BIT 245
Electronic Page Layout Using QuarkXpress (3)

Use this powerful page layout program to set type and incorporate text and graphics in single and multiple-page documents in a Windows environment.

3 Class Hours; Prerequisite: BIT 101 or the equivalent.

BIT 246
Introduction to Electronic Page Layout Using QuarkXpress (1)

Use this page layout program to design and create simple one-page documents. Combine text and graphics in creating these publications.

1 Class Hour; Prerequisite: BIT 101 or the equivalent.

BIT 247
Intermediate Electronic Page Layout Using QuarkXpress (1)

Create multiple-page documents with this powerful page layout program. Learn to use advanced editing features; work with pictures and picture boxes; explore word processing features of the software.

1 Class Hour; Prerequisite: BIT 246 or the equivalent.

BIT 248
Advanced Electronic Page Layout Using QuarkXpress (1)

Enhance the documents you prepare using QuarkXpress by utilizing advanced features of the program. An emphasis is placed on typography, lines and rules, working with color, printing files, and working with a service bureau.

1 Class Hour; Prerequisite: BIT 247 or the equivalent.

BIT 250
Integrated Microsoft Office (3)

Integrated Microsoft Office will acquaint students with operating systems, word processing, database management, spreadsheet applications, and presentation graphics. Students will prepare business documents by embedding and linking files.

3 Class Hours; Prerequisite: BIT 101 or the equivalent.

BIT 251
Introduction to Microsoft Word (1)

Learn to use this popular word processing package to prepare simple letters, memos, and reports. Upon successful completion of this course, you will be able to create, store, and print routine business and/or personal documents efficiently.

1 Class Hour; Prerequisite: BIT 101 or the equivalent.

BIT 252
Introduction to Microsoft Excel (1)

Use this popular software to prepare worksheets and charts. Learn to create and use multiple worksheets, link workbooks, create lists and macros, and use templates.

1 Class Hour; Prerequisite: BIT 101 or the equivalent.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

BIT 253

Introduction to Microsoft Access (1)

Use this popular database software to prepare tables and reports. Create and us queries to sort and select records.

1 Class Hour; Prerequisite: BIT 101 or the equivalent.

BIT 254

Introduction to PowerPoint (1)

Learn to create simple text charts, data charts, speaker notes, handouts, and a screen show using a sophisticated graphics software package.

1 Class Hour; Prerequisite: BIT 101 or the equivalent.

BIT 255

Integrated Business Office Applications (3)

Advanced office functions including integrating word processing, database, sreadsheets and presentation graphics. Preparation of business documents.

3 Class Hours; Prerequisite: BIT 100, BIT 130.

BIT 265

Project Management (3)

This course is designed to prepare students in planning, organizing, and executing the steps in project development. Students will develop teamwork and time management skills to carry a project through its life cycle.

3 Hours.

BIT 270

Personal and Professional Development Seminar (3)

Designed for any student who wishes to develop a personal and professional edge. Topics include interpersonal communication skills, organizational dynamics, personal, educational and professional career goal planning, time management, and personal and professional factors associated with success.

3 Class Hours

BIT 271

Personal Development (1)

Student will have the opportunity to focus on self by addressing issues such as self-esteem, goal setting, nonverbal communication, assertiveness, self-confidence and other personal development issues as they relate to the business environment.

1 Class Hour

BIT 272

Professional Development (1)

Student will have the opportunity to explore such areas as cultural diversity, business ethics, leadership skills, attitude, teamwork, and organizational relationships. Focus will be on working relationships with others in the business environment.

1 Class Hour

BIT 273

Business Etiquette and Protocol (1)

Student will learn how to follow rules of etiquette and protocol as they relate to the business environment.

1 Class Hour

BIT 274

Job Campaign Techniques (1)

Emphasis on preparing resumes, letters of application and interview follow up, handling difficult interview questions, preparing a professional-looking portfolio, presenting yourself with a businesslike image, and practicing the interview.

1 Class Hour; Prerequisite: Word processing skill.

BIT 275

Advanced Business Communications (3)

Instruction in advanced business communications skills. Students will have the opportunity to develop and demonstrate a variety of written, verbal and nonverbal communication skills through the design, development, and presentation of a communication project.

3 Credit Hours; Prerequisite: BIT 110, BIT 140W, BIT 250 or developmental approval.

1 Class Hour

BIT 280

Office Administration (3)

This course is designed to help students understand the modern administrative practices of office management. Emphasis is placed on planning and organizing office operations, leadership and human relations in the office; familiarization with the budget process, and controlling office operations, including office systems, work measurement, and standards. Decision-making skills are developed through problem analysis techniques.

3 Class Hour

BIT 290

Special Topics in Business Technologies (1-3)

Topics in this course will acquaint the students with current advances and techniques in business, communications, and information technologies. Course topics may include Intranet, creation of multimedia documents, qualitative research methodology, and digital audio transcription technology.

1-3 Class Hours; Prerequisite: Departmental approval.

BIT 297

Internship (1-3)

Career-related experience that complements academic preparation in the business technologies area. Interns receive on-the-job experience in business setting and met with the internship coordinator as scheduled.

Prerequisite: Departmental Approval.

BIT 299

Independent Study (1-4)

Under the guidance of a faculty member, the student will undertake a study, project, or research involving an advanced concept or problem relating to her/his major field of study. Only one independent study course is allowed each semester.

1-4 Class Hours; Prerequisite: Approval of faculty member and Department Chairperson.

BANKING

BNK 120

Sales Management (1)

Designed for new and prospective retail managers. Examines the responsibilities of the sales manager. Selling techniques, establishing market goals and increasing sales results.

1 Class Hour

BNK 123

Product Knowledge: Key to Successful Selling (1)

Gives an understanding of the range of financial services a bank can offer. Also explains the needs these products meet. The course integrates the concept of cross-selling with the product knowledge required to successfully cross-sell.

1 Class Hour

BNK 124

Managing Sales in the Branch (1)

Helps sharpen skills in sales management and apply practical sales techniques. Designed to enable students to motivate and equip sales staff to become an effective sales team.

1 Class Hour

BNK 130

Written Communication for Bankers (1)

An overview of the steps involved in creating successful written communications. Emphasis on letters and written reports.

BNK 140

Statement Analysis (3)

Basic concepts and skills of statement analysis. Examination of ratio analysis, trend analysis, fund and cash flow analysis. Pro forma statements, peak debt position, cash forecasting and working capital analysis are also covered.

3 Class Hours

BNK 150

Customer Service for Bank Personnel (1)

For customer contact personnel, this practically based course provides an opportunity to improve communication skills as they relate to banking needs. Included are elements of professionalism, handling difficult situations and interpersonal communication.

1 Class Hour

BNK 160

Personal Banker (1/2)

Designed for customer contact personnel. Examines customer needs at various stages of life and develops strategies designed to meet those needs.

1/2 Class Hour

BNK 161

Financial Planning for Bankers (3)

Designed for all levels of bank personnel, this course provides a general overview of the financial planning process and its applications. Application of financial planning concepts to personal financial decisions.

3 Class Hours

BNK 162

Deposit Operations (2)

Examines the U.S. payment system of today and tomorrow. Bank deposit-taking activities, management of deposited funds, trends in EFT.

2 Class Hours

BNK 163

Essentials of Banking (1/2)

Orientation to the essential principles, concepts and operations of banking. Economic and organizational aspects of banking, the asset/liability management process, bank products and service.

1/2 Class Hour

BNK 164

Personnel and the Law (1/2)

An introduction to laws pertaining to banking's personnel policies & procedures. Civil Rights Act, Equal Pay Act, EEO, Vietnam Era veterans' legislation.

1/2 Class Hour

BNK 165

Bank Security (1/2)

Designed for experienced customer contact personnel. Examines bank security issues — bank card fraud, bomb threats, extortion, embezzlement.

1/2 Class Hour

BNK 168

Principles of Banking (3)

A core course that examines all aspects of banking. A comprehensive introduction to today's diversified bank services. Bank accounting, pricing, profitability, personnel and security functions.

3 Class Hours

BNK 171
Bank Cards (3)

A thorough overview and update of the bank card industry. History and development of the card, operational aspects, legal and regulatory issues, and implications for the future of the card are discussed in depth.

3 Class Hours

BNK 172
Real Estate Finance for Bankers (3)

An introductory course highlighting sources of mortgage credit. Analysis of mortgage credit and real estate investment. Appraisal of residential and income-producing property, construction loan administration and federal assistance in the mortgage market.

3 Class Hours

BNK 173
Marketing for Bankers (3)

A thorough examination of basic marketing principles and practices and their application to the banking industry. Designed for entry level through mid-management level employees.

3 Class Hours

BNK 174
Money & Banking (3)

Basic economic principles as they relate to banking. This course, designed for bank personnel in customer contact positions, management trainees and mid-management entry personnel, provides the foundation for further banking study.

3 Class Hours

BNK 176
Law and Banking Principles (3)

Sources and applications of banking law. Torts and crimes, contracts, real and personal property, bankruptcy, legal implications of consumer lending.

3 Class Hours

BNK 179
Management Fundamentals/Banking (3)

The art and science of management centered around the basic management function of planning, organizing, lending and controlling. A student-oriented format utilizing case studies and discussion.

3 Class Hours

BNK 180
Economics for Bankers (3)

This course introduces you to the fundamentals of economics. Special emphasis is placed on macroeconomics and topics important to bankers. The course covers the basics of economic theory and includes examples of the application of economics to banking.

BNK 181
Investment Basics and Beyond (3)

Introductory course for trust department and retail bank personnel. The securities market, investment alternatives and trust department investment operations are examined in detail. Also covered are investment techniques, portfolio management and practical applications.

3 Class Hours

BNK 182
Consumer Lending (3)

Designed for entry level and consumer credit personnel. An overview of consumer credit. Evaluating credit risks, consumer credit policy, servicing and collecting loans, consumer compliance, documentation, portfolio management and marketing.

3 Class Hours

BNK 183
Supervision (3)

Helps new or potential supervisors become better managers. Emphasis is placed on the broad perspective of supervision. Combines new insights with the interpersonal skills required of today's supervisors.

3 Class Hours

BNK 184
Banking/Real Estate/Mortgage Practicum (4)

Designed for students without previous exposure to the financial industry chosen. Student will observe and study operations, policies and procedures performed by employees in various settings (private, public agencies, commercial corporations, etc.) Emphasis placed on client, professional support and competition interaction (both front and back office). Students may be placed with companies specializing in Banking/Credit Union Services and/or Real Estate Sales and/or Mortgage Brokerage. Final report integrating the practical and theoretical aspects of their experiences.

4 Class Hours; Prerequisite: 15 credits of coursework, 9 in Business or permission of instructor.

BNK 185
Corporate Banking (3)

A pragmatic approach to understanding the lending environment within a bank. The course provides the less experienced commercial lender with a firm grasp of the sequential nature of the lending process. Emphasis is on a practical technical approach.

3 Class Hours

BNK 186
Preparing for Supervision (1)

For the bank employee considering the move to a supervisory role, knowledge and practice in areas such as leadership, motivation, productivity and communication.

1 Class Hour

BNK 188
Knowing the Market (1)

For new and prospective retail managers, a look at changing bank culture in an era of high technology. Identifying bank and non-bank competition, market segmentation and target market.

1 Class Hour

BNK 190
Problem Loans (3)

Problem loan prevention is stressed by examining common mistakes which cause problem loans. Effectively dealing with problem loans and minimizing losses examined through the use of case studies.

3 Class Hours

BNK 191
Selling Skills for Bankers (1)

An examination of the skills necessary for customer contact personnel to sell bank services and meet customer needs. Development of specific selling techniques and positive attitude.

1 Class Hour

BNK 192
Bank Management (3)

For all levels of bank management this course presents a discussion of bank financial statements, an overview of asset liability management and a thorough discussion of deposit functions, lending short-term funds management and capital management.

3 Class Hours

BNK 198
Law and Banking: Applications (3)

An introduction to laws pertaining to secured transactions, letters of credit and the bank collection process. Check losses, collateral, perfection and default.

3 Class Hours

BNK 199
Analyzing Financial Statements (3)

For the bank lender/credit analyst. How financial data is generated and its limitations. Flow of business funds, selecting and interpreting financial ratios.

3 Class Hours; Prerequisite: BUS 100 Accounting I and BUS 101 Accounting II.

BUSINESS

BUS 100
Accounting I (4)

Introduction to accounting principles and procedures necessary to complete the accounting cycle. Using software modules with Lotus 1-2-3 and/or general ledger software package on a personal computer. Emphasis on journals, ledgers and financial statements, and internal control procedures. Cash transactions, voucher system, merchandise transactions and payroll.

4 Class Hours

BUS 101
Accounting II (4)

Expansion of the fundamental concepts and procedures of accounting. Using software modules with Lotus 1-2-3 and/or general ledger software package on a personal computer. Emphasis on valuation of inventory, receivables and payables. The acquisition, depreciation and disposal of plant assets. Accounting methods and procedures relating to partnerships and the corporate form of business organizations. Manufacturing with emphasis on the special problems and additional accounting procedures to measure, control and report factory production costs.

4 Class Hours; Prerequisite: BUS 100 Accounting I.

BUS 102
Payroll Accounting (2)

A comprehensive study of federal and state laws and regulations affecting payrolls and payroll taxes, practical report preparation and reporting. Requirements including use of a computerized payroll system and proper accounting practices to record payroll and payroll taxes.

2 Class Hours; Prerequisite: BUS 100 or equivalent.

BUS 107
The Freshman Experience (1)

An introduction to college life for the beginning student in the Business Department. College and Departmental policies and procedures, academic advisement and registration, study skills, learning styles, transfer and employment opportunities, college resources (including the library,) and topics in health and fitness.

1 Class Hour

BUS 108
Accounting for a Service Business (4)

Introduction to basic accounting procedures. Topics to include journals and ledgers; fundamental financial statements; cash and credit transactions; internal control over cash; bank reconciliations and the voucher system; basic payroll procedures and reports. Includes a major project using computerized accounting procedures. Emphasis on how the cash basis system works for a service-based business. (MAY NOT BE USED AS A PREREQUISITE FOR BUS 101. SEE BUS 100.)

4 Class Hours

BUS 109
Workplace Readiness (1)

Emphasis will be on resumé development, job search techniques, interview preparation, and workplace etiquette. The method of instruction will include lecture, discussion, and role playing.

BUS 110
Introduction to Business (3)

General background of modern business practices through the study of organization and management, production, human resources, accounting and finance, marketing, and the information needed for control and management decisions in business and society.

3 Class Hours

BUS 111
Financial Accounting (4)

A comprehensive introduction to financial accounting concepts and techniques intended to provide a basic understanding of the accounting cycle, elements of financial statements, and interpretations. Elements examined include the creation of financial statements, accounting as an information system, accrual concepts, merchandising operations, inventory, internal control, cash, receivables, long-lived assets, liabilities, stockholders' equity, investments, cash flows, and financial analysis.

4 Class Hours

BUS 112
Quantitative Business Methods (3)

Quantitative analysis of contemporary business problems. Emphasis on percentages, ratios, markup/markdown, cash discounts, trade discounts. Simple interest, compound interest, consumer credit, and insurance. Present value, future value, annuities. Basic statistics and graphical analysis.

3 Class Hours

BUS 115
Business Statistics (3)

Concepts and mechanics of measures of central tendency, measures of dispersion, probability, sampling theory, estimation, hypothesis testing, regression and correlation as they relate to general problems in business and economics.

3 Class Hours; Prerequisite: MAT 092 Foundations for College Mathematics II or equivalent (course one high school math).

BUS 116
International Business Environments (3)

An overview of the social, cultural, political, and economic factors that influence the trade related interaction of nations and the operations of global business enterprises. Trade theory, economic integration, global sourcing, export-import basics, cultural awareness, and other current topics relating to international business will be covered.

BUS 118
Business Law I (3)

Law as an evolutionary and democratic process. Topics include torts and criminal law, court structure, ethical issues in business, administrative law, law-of-contracts, legal principles of agency, employment rights and an introduction to business organizations including partnerships.

3 Class Hours

BUS 120
Business Law II (3)

The law governing the negotiation or transfer of commercial paper, law of sales, law of personal and real property, bailments, insurance, landlord-tenant relationships and an introduction to corporate law. This course is included in the campus general education requirements as a writing emphasis course.

3 Class Hours; Prerequisite: BUS 118 Business Law I.

BUS 121
Business Law III: Special Topics; Environmental, and International Law (3)

Topics of study in this course include: close corporations and limited partnerships; securities regulation, accountants' legal liability; estates and trusts; credit transactions, including secured transactions, administrative agencies, antitrust law, consumer protection, bankruptcy, environmental regulation and international law.

3 Class Hours; Prerequisite: Bus Law I & II; or consent of instructor.

BUS 129
Consumer Behavior (3)

Emphasizes the development of how people make purchase decisions in the marketplace. Consumer decision making, learning, brand loyalty and market segmentation.

3 Class Hours

BUS 130
Retail Management (3)

Techniques involved in planning, organization, control and operation of diverse retail establishments. Trading area analysis, warehousing, inventory control, customer relations. Case studies, field trips.

3 Class Hours; Prerequisite: BUS 264 Retailing.

BUS 131
Personal Finance (3)

Guidelines for financial planning regarding long-term and short-term installments buying, i.e., homes, autos, etc., credit, insurances, taxes, savings, budgeting, and investments in real estate, stocks, bonds, IRA's, mutual funds, money market accounts, etc.

3 Class Hours

BUS 135
Investments (3)

Evaluation of retirement/pension choice (IRA, SEP/IRA, Keogh, 403b, 401k, etc.). Selection, analysis and valuation of Limited Partnerships, Investment Companies (Closed-End vs. Open End Mutual Funds), REIT's, Unit Investment Trusts, Fixed Income Securities, Government Securities, Common Stock, Options, Annuities and various insurance company hybrids. Non-financial assets, i.e., collectibles and precious metals as tools of investing.

BUS 141
Marketing (3)

Introductory study of Marketing as an art and a science. Analysis of the basic principles and practices necessary to complete the marketing cycle effectively. Marketing of goods and services, from conception of the original product idea to delivery to the ultimate consumer. Marketing mix, marketing concept, environmental and societal constraints. Lecture, discussion, cases.

3 Class Hours

BUS 142
Marketing for the Non-Profit Organizations (3)

Introductory study of marketing for organizations that operate in the pubic interest without a profit motive. Analysis of the differences and similarities of profit-oriented and non-profit marketing. Emphasis of the exchange process, marketing concept, and environmental and societal constraints. This course is designed to assist non-profit organizations or individuals in applying the appropriate marketing concepts and strategies to generate adequate financial and public support. Lecture, cases, and discussions.

3 Class Hours

BUS 145
Seminar in Total Quality Management (3)

Total Quality, as a management model and philosophy will introduce the student to a framework for thinking about the customer, the product, the market and the organization. While emphasis will be on the service sector — this course stresses that the customer is an asset of the business and there is a need to understand, respect, and satisfy him/her at every level of an organization regardless of specific industry. Included are such topics as why quality is so important now, the standards of quality, how principles and values drive a company, the customer's impact on business and their impact on teamwork, continuous improvement, measurement, and leadership.

This course will define quality philosophies and show real-world examples of successes as well as failures and suggest ways to implement a Total Quality program, etc.

3 Class Hours

BUS 152
Selling Fundamentals (3)

Principles of sales with practical application. Steps leading to a successful sale — prospecting, planning and delivering, dramatizing, handling objections, closing, building good will. Development and presentation of a complete procedure for a product or service. Closed-circuit television used to critique sales presentations.

3 Class Hours

BUS 154
Purchasing (3)

An overview of the procurement and materials management activities that occur in an industrial environment. Discussion topics include supplier selection, pricing, negotiation, contracts, inventory, management and quality. Case studies are used to emphasize purchasing's role in the organization.

3 Class Hours

BUS 159
Management Institute I (1)

From the "hands on" point of view, an overview of what it takes to be a manager. Self-evaluation, management functions, data management, legal regulations and unions, organizational overview, the people factor in management and role playing. A team-teaching approach is used when possible.

1 Class Hour

BUS 161
Real Estate Appraisal (3)

Designed to acquaint participants with the appraisal process of real property. Market approach, income approach and cost approach to value. Activities designed to build appraisal skills through case study, prepare appraisal reports and analyses.

3 Class Hours

BUS 163
Real Estate for Salespersons (2)

Designed to meet New York state requirements for licensure as a real estate salesperson. Land use regulation, law of contracts, real estate instruments, real estate mathematics, real estate finance, closing and closing costs, brokerage and the law of agency, valuation and listing procedures, license law and ethics, human rights and fair housing.

2 Class Hours, 1 Laboratory Hour.

BUS 164
Real Estate for Brokers (3)

Designed to meet New York state requirements for licensure as a real estate broker. Land use regulation, operation of a real estate broker's office, general business law construction, subdivision and development, leases and agreements, liens and easements, taxes and assessments, investment property, property management, condominiums and cooperatives, appraisal, advertising, rent regulations.

3 Class Hours; Prerequisite: BUS 163 Real Estate for Salespersons.

BUS 170
Insurance for Agents and Brokers (7)

Comprehensive survey of insurance. Fire, marine, automobile, owner liability, burglary, boiler, machinery, accident and health, fidelity and surety insurance, insurance law and duties of the agent. Designed to meet requirements for the N.Y.S. property and casualty insurance license.

7 Class Hours

BUS 172
NYS Life/Health Insurance Licensing (2)

Prepares students to complete New York State licensing exams in life, accident, and health insurance. Life Insurance Principles, Uses, Insurance Contracts, Group Insurance, Annuities, Social Security Programming, Laws on Insurance, Accident & Health Necessity, Accident & Health Insurance Terminology, Accident & Health Risk Selection, Types of Accident & Health Policies, Statutory Plans, Types of Accident & Health Carriers, Types of Accident & Health Coverage, Statutory Policy Provision, Agency Duties & Responsibilities.

2 Class Hours, 1 Laboratory Hour.

BUS 176
Real Estate Finance (3)

Analysis of theories, practices and policies of real estate financing. Mortgage theory and lending practices in addition to alternative means of financing real property in the contemporary market. Case practices to build analytical skills in selecting different financing approaches.

3 Class Hours

BUS 181
The Internet with Business Applications (3)

An in-depth examination of the Internet and how it is used in modern business. Basic Internet tools such as Gopher, Lynx, FTP, Telnet and many others. Direct personal communications using e-mail, listserves, Usenet and IRC, including how to set up your own discussion platforms. Using search engines such as Lycos, Nikos, WWWW, Whois, Netfind, and others to find different things in different ways. How the Internet is being used for marketing, advertising and market research. Use of the Internet by financial institutions and mercantile operations. HTML and home page construction, including strategic issues for an effective page. Security issues, cybercash, "netiquette," future business trends and other issues in business uses of the Internet.

3 Class Hours

BUS 183
Securities Training Series (Series 6 and 63) (3)

This course is designed for individuals who will be selling only investment company products (eg. mutual funds, money market funds) and variable contracts for an NASD (National Association of Securities Dealer) broker-dealer or a bank affiliate. The Series 6/Series 63 course will effectively prepare them for the qualifying exams (Series 6-Federal, Series 63-NYS).

3 Class Hours, 1 Laboratory Hour.

BUS 184
Financial and Risk Management Practicum (4)

Designed for students without previous exposure to the financial industry chosen. Student will observe and study operations, policies and procedures performed by employees in various settings (private, public agencies, commercial corporations, etc.) Emphasis placed on client, professional support and competition interaction (both front and back office). Students may be placed with companies specializing in Financial Planning/Investing and/or Personal and Business Life and Accident and Health Insurance and/or Pension and Benefits Administration. Final report integrating the practical and theoretical aspects of their experiences.

4 Class Hours; Prerequisite: 15 hours of course work, 9 in Business or permission of Instructor.

BUS 188
Income Tax I (2)

Fundamental federal and New York state income tax rules and regulations for filing personal income tax forms. Gross income inclusions and exclusions, adjustments to income, tax credits, estimated taxes, itemized deductions, penalties and avoidance, amended tax returns.

2 Class Hours

BUS 189
Income Tax II (2)

Preparation of supplementary tax form, such as capital gains, rentals, income averaging, sole proprietorship, self-employment taxes, investment credit, corporation tax returns, sub-chapter S corporations, gift and inheritance taxes.

2 Class Hours

BUS 190
Marketing and the World Wide Web (3)

An introduction to basic marketing principles and practices. Emphasis on global aspects of marketing, consumer understanding, identification of target markets, and basic elements of advertising on the Internet. An examination of how businesses design websites with specific emphasis on customer service and evaluation of customer responses.

3 Class Hours; Prerequisite: Prior knowledge of e-mail, Internet, and HTML recommended.

BUS 200
Intermediate Accounting I (4)

An intensive study of accounting theory and procedures. Emphasis on balance sheet accounts and their interrelationships with income statement accounts. The accounting process and correction of errors. Advanced treatment of cash, receivables, inventories.

4 Class Hours; Prerequisite: BUS 101 Accounting II.

BUS 201
Intermediate Accounting II (4)

A more advanced treatment of accounting for fixed assets, intangible assets, current and long-term liabilities. Corporation accounting, funds flow reporting, financial statement analysis.

4 Class Hours; Prerequisite: BUS 200 Intermediate Accounting I.

BUS 202
Securities Training Series 7 (3)

This course will effectively prepare individuals to pass the General Securities NYSE/NASD Registered Representative Examination. The Series 7 license permits individuals to engage in sales and trading activities related to a variety of products including stocks, bonds, mutual funds, municipal securities, options, and direct participation programs.

3 Class Hours, 1 Laboratory Hour.

BUS 205
Cost Accounting I (4)

Nature and purpose of cost accounting. Job order and process costing. Accounting for factory overhead and analysis of variances. Accounting for labor and material.

4 Class Hours; Prerequisite: BUS 101 Accounting II.

BUS 206
Cost Accounting II (4)

Further consideration of cost accounting principles, standard costs and variances. The construction of budgets, profit planning. Flexible budgets. Direct costing. Break-even analysis. Accounting for by-products and joint products. Non-manufacturing costs.

4 Class Hours; Prerequisite: BUS 205 Cost Accounting I.

BUS 209
Operations Management (3)

A study of the overall production-related activities of a manufacturing firm. Topics include: project planning, capacity planning, scheduling, inventory management, MRP, JIT, CIM and TQM.

3 Class Hours

BUS 210
Managerial Accounting (4)

Accounting for managerial analysis and decision making, providing an analysis of accounting data useful in the planning and control functions of a firm. Study of cost concepts, break-even, differential accounting and responsibility accounting.

4 Class Hours; Prerequisite: BUS 100 Accounting I or BUS 111 Financial Accounting.

BUS 214
Customer Service (3)

A comprehensive survey of all aspects of customer service. Analysis of basic principles and practices leading to in-depth consideration of customer service specifics. Topics covered will include measuring customer satisfaction, managing customer service, telephone skills, handling difficult customers, and multicultural customer service. Other areas of customer service will be examined as current circumstances and areas of interest dictate. This course is the capstone course for the customer service certificate program, but is of value to anyone interested in building customer satisfaction and loyalty.

BUS 224
Business Finance (3)

Financial principles and procedures of capital management. Analysis of the relationship of finance to micro and macro economics factors such as inflation business cycle, competition, regulation. Emphasis on corporate goals and objectives as a determining factor in the choice of financial management policy. Application of financial ratios, cash budgeting, forecasting, leverage, working capital policy, capital markets, stocks and bonds, valuation and other basic areas of finance. Problem solving using computer applications is required.

3 Class Hours; Prerequisite: BUS 101 Accounting II, MAT 092 or equivalent (equivalent is Course I High School Math), CST 107 or equivalent.

BUS 229
Advertising (4)

Development, economics, functions of advertising. Cost application, media, testing and research methods. Development of advertisements, copy and layout, methods and problems of reproduction. Planning the advertising campaigns with step-by-step developments. Lectures, discussions, demonstrations. Students are required to use the computer to generate graphics. BUS 141 Marketing is recommended as preparation for this course.

4 Class Hours

BUS 238
Marketing Research (3)

Methods of collecting and interpreting marketing information which affects marketing management. Specific applications to problem identification in market development, gauging market potential and implementation of research designs in the marketplace.

3 Class Hours

BUS 242
Marketing Seminar (3)

Senior capstone course which integrates various business subjects previously studied. Individual and team approach are utilized to analyze comprehensive marketing and management cases. A competitive computer based marketing simulation will give students a realistic view of the dynamic interaction of various marketing and management forces. This course is student centered and focuses on interpretation of marketing information and the development of critical thinking skills. Cases, computer simulation, discussion.

3 Class Hours; Prerequisite: BUS 141 Marketing, Non-marketing majors must have instructor's permission.

BUS 245
Management: A Behavioral Approach (3)

A comprehensive analysis of managerial theories as they relate to a changing social and economic environment. An integration of social sciences will be used to investigate functions. Different cultural management styles will also be analyzed.

3 Class Hours

BUS 246
Principles of Management (3)

Principles of managerial practices. Planning, organizing, directing and controlling. Exposes students to proper methods and techniques to achieve employee and job satisfaction. Topics covered include scientific management, behavioral theory and introduction to management science.

3 Class Hours

BUS 248
Human Resource Management (3)

Acquisition, development, maintenance, and utilization of a workforce within an organization. Job Analysis, recruitment and selection, training and development, equal opportunity law, wage/benefit administration, and union-management relations are focus areas of this course. Other timely topics such as sexual harrassment and the current regulatory environment are examined as circumstances dictate. Lecture, cases, discussion.

3 Class Hours

BUS 251
Advanced Topics in Human Resource Management

An in-depth continuation of the study of concepts introduced in an introductory human resource management course. Focus will be on increasing the depth and breadth of students knowledge in specific HRM topics with an emphasis on current issues. This course will use a theoretical and practical approach to demonstrate the concepts and application of major topic areas such as; staffing, compensation management, public policy and the regulatory environment, human resource development, and collective bargaining. Additional topics will be addressed as circumstances dictate. Interactive learning is stressed through discussion, cases, and experiential exercises.

3 Lecture Hours per week; 3 Semester Credits; Prerequisite: BUS 248 Human Resource Management or Permission of the Instructor.

BUS 252
Supervision of Personnel (2)

Concepts and psychology of personnel supervision, including legal and social aspects of First Line Management as related to the overall management team. Training techniques, discipline problems and appraisal analysis are studied to better understand the issues facing a First Line Manager. Classroom case studies will supplement the class discussion. Emphasis is placed on the supervisor as the first level of management, with common bonds to, yet tangible differences from the remainder of the management team.

2 Class Hours

*BUS 254
Management Institute II (3)

From the "hands on" point of view, an in-depth study of what it takes to be a manager. Coaching, counseling, performance, appraisal, interviewing, conflict resolution, risk, communications, data management and dealing with stress. A team-teaching approach is used when possible.

3 Class Hours

*BUS 255
Industrial Labor Relations (2)

Processes of bargaining and contract administration between industrial employers and union representing employees, as a system of compromising opposing objectives and settling differences. Origins of unions, how they organize and gain recognition and how the labor agreement is negotiated and administered. Interaction among employees, stewards and supervisors. Labor laws. Institutions such as the National Labor Relations Board, mediation, services, arbitration boards and courts.

2 Class Hours

*BUS 258
Human Relations in Business (2)

Basic psychological principles applied to the problems of employee selection, training, evaluation, merit rating and advancement. Social interaction and human relations in industries including discussion of internal attitudes, self-awareness, role identification, role modeling, and analysis of employee values. Emphasis is placed upon communication, as it affects the human relations process, conflict resolution, team building analysis, and organizational stress. All topics are viewed with respect to job satisfaction, morale, and employee-management interaction.

2 Class Hours

BUS 262
Small Business Management (3)

An overview designed for those interested in small business as owner-managers. Development of modern management techniques covering forms of organization, site acquisition and location, insurance, marketing, financing, pricing, break-even, permits, license and franchising.

3 Class Hours

BUS 263
Small Business Seminar (4)

An intensive study of the various facets involved in organizing and operating a small business venture. Researching and evaluating business opportunities, establishing a buying/selling price for the business, small business taxation, analyzing and solving business problems, using information to manage marketing ideas. Heavy emphasis on development of the business plan and preparation of the loan proposal.

4 Class Hours; Prerequisite: BUS 101 Accounting II.

BUS 265
Retail Merchandising (3)

Principles of effective display: interior, window, point-of-purchase. Analysis of consumer buying habits, market evaluation, trend forecasting. Evaluation of variables of decor, lighting, impulse arrangements. Techniques of advertising and sales promotion. Case studies, field trips.

3 Class Hours; Prerequisite: BUS 264 Retailing.

BUS 266
Advertising and Promotion for Small Business (4)

A comprehensive study emphasizing "hands on" approach to small business advertising and promotion. Functions of advertising and promotion, budgeting, media selection, cost consideration, development of copy and layout. Students will use various media, including television, in the preparation of an advertising campaign. Current information on public relations and merchandising. Store layout and design, sales promotion, dealer programs and co-op advertising.

4 Class Hours

BUS 267
Retailing in a Service Economy (3)

The history and overview of Retailing and the growth of the Service Sector economy. Covers the changes occurring in the distribution of goods and services including the growth of franchises, direct marketing and service businesses. The changes in retail structures, i.e., the demise of urban centers and traditional department stores and the growth of shopping centers, malls, and specialty retailers, are central to this course.

3 Class Hours

BUS 268
PHR Certificate Directed Study

This course is designed to prepare the student to sit for the Human Resource Certification Institute examination. A seminar approach will be used to explore all major areas of human resource management. Students will be actively involved in the learning process and will collaborate along with the instructor to develop the depth of understanding necessary to be certified as a human resource professional.

4 Hours Lecture per week; 4 Semester Credits; Prerequisite: None.

NOTE: This course prepares the student for, but does not guarantee certification.

BUS 269
Business Reports and Computer Communications (3)

Methods and skills for formal and informal business writing through the logical analysis of business case problems. Emphasis on utilizing the computer in the preparation, transmittal, and retrieval of business information and reports. Proper construction of business charts, graphs, tables, and graphics, using various computer software. Students learn to properly construct business letters, memos, bids, quotes, and other business reports and documents. Transmitting business reports using E-mail. Accessing and transmitting business information using the computer.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

3 Class Hours

BUS 270

Management Science (3)

An introduction to managerial problems relating to the planning and controlling functions, which provide guidelines to making rational decisions. A realistic approach utilizing cases and simulation is taken to expose the student to quantitative as well as subjective analysis to point out the constraints placed upon management. Managerial problem solving using the computer is required.

3 Class Hours; Prerequisite: BUS 115 Business Statistics or MAT 124 Statistics I.

BUS 275

Accounting Information Systems (4)

Computer based accounting systems with emphasis on development and implementation. Topics will include; creation of a general ledger, establishment of accounts receivable and billing procedures, management of cash and current liabilities, and payroll accounting. Also to be addressed is the development of a variety of custom management reports. The course will be divided into two parts, during part one, students will learn the tools necessary to implement an accounting system. During part two, students will work in teams which will develop a system for a local company or in some instances a mock business set up by the instructor. Instructor approval required for admission.

Prerequisite: BUS 200 Intermediate Accounting I, CST 107 Bus. Appl. Microcomputer.

BUS 295

Accounting Seminar (4)

In-depth treatment of accounting for payroll taxes followed by actual completion of required state and federal tax forms. Thorough coverage of the Individual Tax Form 1040, schedules A, B, C, D, E and G, small business taxes schedule SE and investment credit. Corporate tax form 1120. Accounting concepts and current trends in accounting as reflected through financial statement analysis.

4 Class Hours

BUS 297

Cooperative Work Experience (1-3)

Cooperative education is available to students in the marketing management, marketing sales and accounting curricula. On-the-job experience may be obtained in such areas as retailing, banking, fast foods, government services and hotel management, as well as CPA firms, public accounting offices, industrial, business and government offices where accounting is performed. Cooperative work students will meet with the coordinator one hour each week.

Prerequisite: Full-time student (minimum of 12 credit hours) maintaining an overall grade-point average of 2.5, with 3.00 in Business courses and no F's.

BUS 299

Independent Study (1-4)

The student, under the guidance of a faculty member, undertakes an investigation, study and research in an advanced concept or problem concerning his/her major field of study. Only one independent study course is allowed per semester.

Prerequisite: Approval of faculty member and department chairperson.

CERTIFIED DENTAL ASSISTING

CDA 101

Dental Assisting I (1)

Introduction to the basic theory involved in dental assisting treatment areas, instruments and procedures. Includes emphasis on oral evacuation, instrument transfer, the dental dam and data gathering. Specialty areas covered will be endodontics, oral and maxillofacial surgery and prosthodontics.

1 Lecture Hour; Corequisites: CDA 101L Dental Assisting I Lab, CDA 112 Oral Anatomy and Physiology; Prerequisite: CDA 110 Infection Control or permission of the department.

CDA 101L

Dental Assisting I Laboratory (2)

Preclinical/clinical experiences in the procedures of dental assisting. Emphasis on preparing treatment areas, data gathering, oral evacuation, instrument transfer and placing the dental dam. Specialty procedures include endodontics, oral and maxillofacial surgery and prosthodontics.

6 Laboratory Hours; Corequisite: CDA Dental Assisting I Lecture or permission of the department.

CDA 102

Practice Management & Computers (1)

Basic concepts of business office management and bookkeeping including the role of the computer in dental office practice. The functions of marketing, appointment control and record management are stressed along with accounts receivable and payable. A portion of the course will be devoted to employment in the dental office including the search for a job.

1 Lecture Hour.

CDA 103

Ethics/Legal Aspects of Dentistry & Professionalism (1)

Overview of dental ethics and jurisprudence and professionalism in the dental office. Risk management with emphasis on malpractice, consent and refusal of treatment.

1 Lecture Hour.

CDA 104

Introduction to Biomedical Sciences (2)

Basic introduction to the sciences of anatomy and physiology, microbiology and nutrition. The intent of this course is to present basic theoretical concepts of importance in the appreciation and understanding of dental care and its delivery.

2 Lecture Hours.

CDA 105

Dental Assisting II (1)

Continuation of CDA 101 Dental Assisting I. Emphasis on dental/medical emergencies and special patients. Dental specialty areas include periodontics and orthodontics.

1 Lecture Hour; Prerequisite: CDA 101 Dental Assisting I or permission of the department; Corequisite: CDA 105L Dental Assisting II Lab.

CDA 105L

Dental Assisting II Laboratory (1)

Continuation of CDA 101L Dental Assisting I Lab Preclinical and clinical experiences in the procedures involved in dental/medical emergencies and special patients. Specialty procedures include periodontics and orthodontics.

4 Lab Hours; Prerequisites: CDA 101L Dental Assisting I Lab or permission of the department; Corequisite: CDA 105 Dental Assisting II Lecture or permission of the department.

CDA 106

Clinical Practice (1)

Directed practice experience for certified dental assisting students in dental offices or dental clinics.

4 Lab Hours; Prerequisites: student must have successfully completed all courses in the summer and first semester of the program; Corequisites: CDA 105 Dental Assisting II and CDA 105L Dental Assisting II Lab or permission of the department.

CDA 107

Introductory Oral Pathology & Dental Therapeutics (2)

Introduction to oral pathology and dental therapeutics. Basic concepts of disease and disturbances of the oral cavity and their impact on general health. Presentation of pharmacology and pain control as they relate to the dental office including types and administration of drugs, analgesics, sedation and nitrous oxide, general anesthesia and local anesthetics.

2 Lecture Hours.

CDA 108

Oral Health Education & Preventive Dentistry (1)

Introduction to the key concepts in oral health education and preventive dentistry. Emphasis on patient motivation and education, fluorides and plaque control.

1 Lecture Hour; Prerequisite: CDA 104 Introduction to Biomedical Sciences or permission of the department.

CDA 110

Infection Control (1)

Theory in infection control in dentistry, including responsibility for infection control practices, transmission of disease and methods for preventing disease transmission in the dental office.

1 Lecture Hour.

CDA 112

Oral Anatomy and Physiology (2)

Normal structure and function of the oral cavity, head and neck (microscopic and gross).

2 Lecture Hours.

CDA 114

Radiography Theory (1)

Understanding radiation including radiation principles; radiation health, safety and protection; radiographic quality, intraoral techniques, film processing and mounting interpretation of radiographic errors and recognition of anatomical landmarks; legal factors.

1 Lecture Hour.

CDA 116

Dental Materials (3)

Composition, chemical and physical properties, use and manipulation of material used in dental laboratory and operatory.

3 Lecture Hours.

CHEMISTRY

CHM 090

Preparatory Chemistry (0)

Introductory course in chemistry emphasizing problem-solving techniques related to chemical concepts. Atomic structure, stoichiometry, metric units, chemical bonding, chemical nomenclature, solution chemistry.

4 Class Hours; Prerequisite: MAT 094 Applications of Algebra with Trigonometry I or MAT 096 Elementary Algebra and Trigonometry.

CHM 120
Fundamental Chemistry **(4)**

Composition of substances, atomic structure, periodicity, bonding, chemical equations, state of matter, aqueous solutions, pH, and an introduction to organic chemistry and biochemistry.

3 Class Hours, 3 Laboratory Hours; Prerequisite: MAT 090 Foundations for College Mathematics.

CHM 121
Forensic Sciences **(4)**

The science behind the examination of firearms, cartridges, explosives, drugs and other types of physical evidence by the crime lab is presented. Emphasis on proper handling of substances found in crime scene investigations. Laboratory techniques include many modern instrumental methods, such as gas chromatography, infrared and mass spectroscopy as used in today's modern crime labs.

3 Class Hours, 3 Laboratory Hours.

CHM 125
Chemistry **(3)**

Fundamental concepts of inorganic chemistry. Composition of substances, kinetic and molecular theories, atomic structure and bonding, solutions and colloids, ions in solution and introduction to organic chemistry. For Fire Protection Technology students.

2 Class Hours, 3 Laboratory Hours.

CHM 133
Survey of Organic Chemistry

Fundamental treatment of organic chemistry, nomenclature, properties of selected functional groups, mechanisms, stereochemistry and synthetic methods. Special emphasis on biomolecules such as lipids, carbohydrates, nucleic acids, vitamins and medicinally active compounds.

2 Class Hours; Prerequisite: CHM 145 Chemistry I and CHM 145 Chemistry Laboratory I; Corequisite: CHM 146 Chemistry II and CHM 146 Chemistry Laboratory II and CHM 133L Survey of Organic Chemistry Laboratory.

CHM 133L
Survey of Organic Chemistry Laboratory **(1)**

Emphasis on techniques on separation, identification and purification by classical and instrumental methods such as gas chromatography and spectroscopy, and selected experiments with biomolecules.

4 Laboratory Hours; Prerequisite: CHM 145 Chemistry Laboratory; Corequisite: CHM 133 Survey of Organic Chemistry.

CHM 141
General, Organic, and Biochemistry I **(3)**

Introductory treatment of general chemistry for the non-science student emphasizing applications of chemistry in everyday life. Measurements, atoms and bonding, the states of matter, nuclear processes, oxidation and reduction, solutions, acids and bases. Applications include energy sources, effects of radiation, the environment, life processes, testing of advertising claims. For Liberal Arts non-science students.

3 Class Hours; Prerequisite: MAT 090 Foundations for College Mathematics I; Prerequisite or Corequisite: CHM 141L General Chemistry Laboratory I.

CHM 141L
General, Organic, and Biochemistry Laboratory I **(1)**

Experiments to introduce chemical laboratory techniques while increasing awareness of the chemical world and to attain some insight into how a chemist attacks a problem. Qualitative and quantitative measurements.

3 Laboratory Hours; Corequisite: CHM 141 General Organic and Biochemistry I.

CHM 142
General, Organic and Biochemistry II **(3)**

Continuation of CHM 141 General, Organic and Biochemistry I. A survey of organic chemistry including nomenclature, reactions of selected functional groups, stereochemistry and biochemistry. Applications include consumer products, living systems, food and metabolism. For Liberal Arts non-science and Allied Health students.

3 Class Hours; Prerequisite: CHM 141 General, Organic and Biochemistry I; Prerequisite or Corequisite CHM 142L. General Chemistry Laboratory II.

CHM 142L
General Organic and Biochemistry Laboratory II **(1)**

A continuation of CHM 141L General Chemistry Laboratory emphasizing organic and biochemical experiments which substantiate classroom lectures.

3 Laboratory Hours; Corequisite: CHM 142 General Organic and Biochemistry II.

CHM 145
Chemistry **(3)**

Comprehensive treatment of general chemistry for the science-oriented student. Builds on their prior chemistry, with emphasis on the basic laws and theories of chemistry and their derivation from experimental evidence. Presents the qualitative and quantitative aspects of matter's composition and changes and their unifying principles. Includes physical and chemical properties, periodicity of elements, stoichiometry, current atomic and bonding theories, laws and theories of physical states and changes of state, solution chemistry, and thermochemistry.

3 Class Hours; Prerequisite: Regents Chemistry (75 minimum final grade) or CHM 090 Preparatory Chemistry and Regents Level III Math or MAT 096 Elementary Algebra and Trigonometry or MAT 098 Applications of Algebra with Trigonometry II; Corequisite: CHM 145L Chemistry Laboratory.

CHM 145L
Chemistry Laboratory **(1)**

Laboratory experiments to emphasize the empirical basis for the principles discussed in lecture and the proper gathering and interpretation of experimental data.

3 Laboratory Hours; Corequisite: CHM 145 Chemistry.

CHM 146
Chemistry **(3)**

Continuation of CHM 145 Chemistry including thermodynamics, kinetics, equilibrium, equilibrium in aqueous solution, acids and bases, coordination chemistry and electrochemistry.

3 Class Hours; Prerequisite: CHM 145 Chemistry, CHM 145L Chemistry Laboratory; Corequisite: CHM 146 Chemistry Laboratory.

CHM 146L
Chemistry Laboratory **(1)**

Continuation of CHM 145 Laboratory with experiments designed to illustrate thermodynamics, kinetics, equilibrium, qualitative analysis, and electrochemistry.

3 Laboratory Hours; Corequisite CHM 146 Chemistry.

CHM 220
Introduction to Instrumental Analysis **(2)**

An introduction to the theory and laboratory instruction in electrochemical, nuclear, optical and chromatographic methods of analytical chemistry. Laboratory techniques include potentiometry, conductimetry, coulometry, polarography, liquid scintillation counting, gamma spectrometry, ultraviolet-visible, infrared, atomic absorption spectrophotometry, gas, ion, high performance liquid chromatography, and gas chromatography, mass spectrometry. For Medical Laboratory Technology students.

1 Class Hour, 3 Laboratory Hours; Prerequisite: CHM 146 Chemistry.

CHM 245
Organic Chemistry **(3)**

A fundamental treatment of organic chemistry. Organic nomenclature, chemical properties of selected functional groups, mechanisms, stereochemistry and synthetic methods. For Liberal Arts science majors and Engineering Science students with departmental approval.

3 Class Hours; Prerequisite: CHM 146 Chemistry; Corequisite: CHM 245L Organic Chemistry Laboratory.

CHM 245L
Organic Chemistry Laboratory **(2)**

Basic techniques of separation and purification such as recrystallization, distillation, extraction, chromatography, modern instrumental techniques. Introduction to modern organic synthesis with emphasis on microscale techniques and methods of separation and purification.

4 Laboratory Hours; Corequisite: CHM 245 Organic Chemistry.

CHM 246
Organic Chemistry **(3)**

A continuation of CHM 245 Organic Chemistry including spectroscopy and introduction to molecules of biological importance.

3 Class Hours; Prerequisite: CHM 245 Organic Chemistry; Corequisite: CHM 246L Organic Chemistry.

CHM 246L
Organic Chemistry Laboratory **(2)**

A continuation of CHM 245L Organic Chemistry Laboratory including an introduction to complex multi-step synthesis and qualitative organic analysis by classical and modern instrumental techniques with emphasis on microscale techniques.

4 Laboratory Hours; Prerequisites: CHM 245 Organic Chemistry and CHM 245L Organic Chemistry Laboratory; Corequisite: CHM 246 Organic Chemistry.

CHM 251
Chemical Engineering Technology Seminar **(1/2)**

Topics in the field of Chemical Engineering Technology will be presented by guest lecturers from industry and academia. Includes discussions of professional ethics, chemical safety, statistical quality control, industrial processes, transfer and employment opportunity. For Chemical Engineering Technology students.

1 Class Hour

CHM 261
Organic Chemistry **(3)**

A systematic study of the families of organic chemistry, including concepts of bonding, equilibria, reaction, kinetics, energy profiles, isomerism and synthesis. Families viewed with emphasis on nomenclature, structural features, preparations, reaction products and uses.

3 Class Hours; Prerequisite: CHM 146 Chemistry; Corequisite: CHM 261L Organic Chemistry Laboratory.

CHM 261L
Organic Chemistry Laboratory **(2)**

Experiments include separation techniques using instrumentation (infrared spectroscopy, gas chromatography) and synthesis.

6 Laboratory Hours; Corequisite: CHM 261 Organic Chemistry.

CHM 262
Organic Chemistry **(3)**

Continuation of CHM 261 Organic Chemistry. Mass spectroscopy and nuclear magnetic resonance. Special topics including heterocyclic compounds, polymers, biomolecules.

3 Class Hours; Prerequisite: CHM 261 Organic Chemistry; Corequisite: CHM 262L Organic Chemistry Laboratory.

CHM 262L
Organic Chemistry Laboratory (2)

Emphasis on qualitative organic chemistry. Identification of unknowns.

6 Laboratory Hours; Prerequisite: CHM 251L Organic Chemistry Laboratory; Corequisite: CHM 262 Organic Chemistry.

CHM 265
Instrumental Methods of Chemical Analysis (3)

Principles and techniques of modern quantitative analysis including treatment of analytical data, sampling, solution adjustment, chelatometry, redoximetry, aqueous and non-aqueous acid-base titrations, electrophoresis and isoelectric focusing, ion-exchange, ion chromatography, conductimetry, coulometry, electrogravim-etry, polarography, amperometry, potentiometry, radioisotope methodology. For Chemical Engineering Technology and Liberal Arts "chemical model" students.

3 Class Hours; Prerequisites: 1 full year of college general chemistry, MAT 160 Applied Calculus I, PHY 162 Physics II and CST 106 Computers in Technology; Corequisite: CHM 265L Instrumental Methods of Chemical Analysis Laboratory.

CHM 265L
Instrumental Methods of Chemical Analysis Laboratory (2)

Application of chelometric, redoc, precipitimetric, aqueous and non-aqueous acid-base methods for chemical analysis or organic and inorganic compounds. Operation of polarographs, conductimeters, potentiometers, coulometers, and electroanalyzers for applications in electrochemical methods of analysis. Operation of a microprocessor controlled liquid scintillation counter, gamma spectrometer, and Geiger-Muller counter for applications in radioisotope methodology. Statistical evaluation of data obtained by the various analytical methods. For Chemical Engineering Technology and Liberal Arts "chemical model" students.

6 Laboratory Hours; Prerequisites: 1 full year of general chemistry, MAT 160 Applied Calculus I. PHY 162 Physics II and CST 106 Computers in Technology; Corequisite: CHM 265 Instrumental Methods of Chemical Analysis.

CHM 266
Instrumental Methods of Chemical Analysis (3)

Principles and techniques of modern instrumental methods of chemical analysis, including ultraviolet visible, infrared, nuclear magnetic resonance, atomic absorption, emission and mass spectroscope. Ion, gas and liquid chromatography. Chemical and scanning electron microscopy and differential thermal analysis. For Chemical Engineering Technology students.

3 Class Hours; Prerequisite: CHM 265 Instrumental Methods of Chemical Analysis; Corequisite: CHM 266L Instrumental Methods of Chemical Analysis Laboratory.

CHM 266L
Instrumental Methods of Chemical Analysis Laboratory (2)

Analysis by optical, chromatographic, thermal techniques, and trace methods applied to contemporary, industrial and environmental problems.

6 Laboratory Hours; Prerequisite: CHM 265 Instrumental Methods of Chemical Analysis; Corequisite: CHM 266 Instrumental Methods of Chemical Analysis.

CHM 271
Chemical Processes (3)

Material and energy balances along with applied and physical principles as they apply to chemical engineering. Emphasis on chemical problem solving.

3 Class Hours; Prerequisites: CHM 142 Chemistry, MAT 160 Applied Calculus I, PHY 162 Physics II and CST 106 Computers in Technology; Corequisite: CHM 271L Chemical Processes Laboratory.

CHM 271L
Chemical Processes Laboratory (2)

Application of lecture topics to industrial situations. Emphasis on written and oral reports.

4 Laboratory Hours; Corequisite: CHM 271 Chemical Processes.

CHM 272
Chemical Processes (3)

Staged operations dealing with phase equilibrium. Graphical, analytical and computer methods are used to solve unit operations problems.

3 Class Hours; Prerequisite: CHM 271 Chemical Processes; Corequisite: CHM 272L Chemical Processes.

CHM 272L
Chemical Processes Laboratory (2)

Measurement of phase equilibrium. Graphical, analytical and computer methods are used to solve unit operations problems.

4 Laboratory Hours; Corequisite: CHM 272 Chemical Processes.

CHM 290
Forensic Toxicology (3)

Application of the principles of forensic toxicology and the related forensic sciences within the scope of medical-legal investigation. Drug and poison analysis, examination of physical evidence and death investigation. Laboratory sessions will provide basic knowledge of forensic analysis utilizing microscopy, gas chromatography, thin layer chromatography and spectroscopy.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CHM 120 Fundamental Chemistry or a semester of General Chemistry or permission of instructor.

CHM 291
Organic Chemistry I (3)

CHM 292
Organic Chemistry II (3)

Nomenclature, properties of selected functional groups, mechanisms, stereochemistry, synthetic methods and spectroscopy. The laboratory stresses basic techniques of reactions, separations and isolations by classical methods as well as modern instrumental techniques.

2 Class Hours, 3 Laboratory Hours each; Prerequisites: CHM 146 Chemistry for CHM 291, CHM 292 Organic Chemistry* for CHM 292.

CHM 293
Analytical-Instrumental Chemistry I (3)

Classical analytical chemistry — sampling, statistics, gravimetric and volumetric analysis. Introduction to electrochemistry.

2 Class Hours, 3 Laboratory Hours; Prerequisite: CHM 146 Chemistry.

CHM 294
Analytical-Instrumental Chemistry II (3)

Continuation of CHM 293 Analytical-Instrumental Chemistry I. Additional electrochemistry and electrochemical techniques. Emphasis on spectroscopic and chromatographic methods. Visible, infrared and nuclear magnetic resonance spectroscopy. Gas, liquid, column and thin layer chromatography.

2 Class Hours, 3 Laboratory Hours; Prerequisite: CHM 293 Analytical-Instrumental Chemistry I.

CHM 299
Independent Study (1-4)

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a work assignment.

Prerequisite: Departmental approval.

CIVIL ENGINEERING TECHNOLOGY

CIV 105
Introductory AutoCAD (2)

An introduction to computer aided drafting using AutoCAD, Release 14, for Windows 95. Command structure; use of menus to create, edit, and manipulate basic drawing elements; screen controls; file management. Selected topics.

1 Class Hour, 2 Laboratory Hours.

CIV 113
Engineering Drawing I w/CAD (2)

An introductory course in the fundamentals of engineering drawing and the basics of Computer Aided Drafting (CAD). Manual drafting techniques are integrated with extensive use of AutoCAD Release 14. Topics include use of the drawing instruments, geometric construction, orthographic projection, sectional and auxiliary views and proper dimensioning techniques. CAD topics include file management; command structure; creating, editing, and manipulating drawing elements; dimensioning. Students will gain an understanding of engineering drawing concepts by applying them in both manual drafting and AutoCAD assignments.

1 Class Hour, 3 Laboratory Hours.

CIV 114
Civil Drafting w/CAD (2)

An introduction to large and intermediate scale mapping. Preparation of highway plan and profile drawings, contour maps, and design details. Introduction to establishing line direction by bearings and azimuths and the use of coordinate geometry. The laboratory exercises will require extensive use of CAD supplemented by several outdoor exercises.

1 Class Hour, 3 Laboratory Hours; Prerequisite: CIV 113 Engineering Drawing I w/CAD and MAT 094 Applications of Algebra with Trigonometry I or equivalent.

CIV 119
Architectural Drawing w/CAD (2)

Fundamentals of architectural drafting including floor plans, elevations, sections, details, schedules, plot plans, plumbing layouts, electrical layouts. Emphasis on residential drawings, instruction in the use of Architectural CAD software for the above types of drawings. Drawing assignments done both manually and using AutoCAD.

1 Class Hour, 3 Laboratory Hours; Prerequisite: CIV 113 Engineering Drawing I w/CAD.

CIV 124
Mechanics (Statics) (3)

Static force systems and equilibrium. Free body diagrams, trusses, graphic statics, spatial force systems, friction, centroids, moments of inertia.

3 Class Hours; Prerequisite: MAT 098 Applications of Algebra with Trigonometry II or equilvalent.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

CIV 136

Construction Methods & Management (3)

Principles of construction methods and management used in the construction industry including contracts, plans, specifications, methods, planning and scheduling, economics and safety. Field trips to various local engineering and/or architectural firms/local construction sites.

3 Class Hours

CIV 159

Architectural Drafting I w/CAD (3)

Development of working drawings for use in residential type construction. Plot plans, floor plans, elevations, details, schedules, electrical layouts. Lecture topics include construction materials, specifications, and methods. Instruction in the use of Architectural CAD software for the above types of drawings. Drawing assignments done both manually and using AutoCAD.

2 Class Hours, 3 Laboratory Hours; Corequisite: CIV 105 Introductory AutoCAD.

CIV 160

Architectural Drafting II (3)

A continuation of CIV 159 Architectural Drafting I. Development of working drawings from two-story and split-level residences.

2 Class Hours, 3 Laboratory Hours; Prerequisite: CIV 159 Architectural Drafting I.

CIV 201

Surveying I (4)

This course introduces the basic concepts of plane surveying. The student will learn the commonly used methods of linear measurement; angular measurement; and leveling. Emphasis is given to the mathematics and computations used by surveyors. Laboratory exercises stress the proficient and proper use of surveying equipment and note keeping.

2 Class Hours, 6 Laboratory Hours; Prerequisite: CIV 114 Civil Drafting w/CAD; MAT 150 College Technical Mathematics.

CIV 202

Surveying II (4)

This course will introduce the following advanced topics in surveying: Location on the spherical earth surface by latitude and longitude or plane coordinate systems; Control surveying techniques; Astronomic observations to establish direction; Use of satellite systems for geopositioning; and the geometry of curves as used in highway location and design. Laboratory exercises will vary between CAD drawings and outdoor measurements.

3 Class Hours, 3 Laboratory Hours; Prerequisite: CIV 201 Surveying I.

CIV 217W

Materials Testing (3)

Composition, properties and testing of construction materials including portland cement concrete, aggregates, cements, admixtures, bituminous materials, ferrous metals, and structural timber. Design and proportioning of concrete mixes. Curing and inspection of concrete. Behavior of materials under load, load and deformation measurements, strain gages. Instruction in 7 concrete sampling and testing procedures required by American Concrete Institute for certification as Concrete Field Testing Technician. Writing emphasis course.

2 Class Hours, 3 Laboratory Hours; Corequisite: CIV 219 Strength of Materials.

CIV 219

Strength of Materials (4)

Concepts of stress and strain. Behavior of materials due to axial force, shear, torsion, and moment. Stresses in beams and columns, shear and moment diagrams, deflections, determinate and indeterminate structures, composite members, combined stresses. Instruction in the use of a Structural Analysis/Design computer program.

4 Class Hours; Prerequisite: CIV 124 Mechanics (Statics) and MAT 150 College Technical Math.

CIV 224

Reinforced Concrete Design (3)

Fundamental theory and principles for design of reinforced concrete by the strength method. Design, analysis and detailing of rectangular beams, T-beams, beams, reinforced for compression, columns and footings. An integrated design and detailing project.

2 Class Hours, 3 Laboratory Hours; Prerequisite: CIV 219 Strength of Materials.

CIV 226

Structural Steel Design (3)

Fundamental theory and principles of design of simple steel structures using LRFD Method. Design, investigation and detailing of beams, columns, tension and compression members and their connections. Composite beams. Includes an integrated design and detailing project. Introduction to use of structural analysis/design computer program.

2 Class Hours, 3 Laboratory Hours; Prerequisite: CIV 219 Strength of Materials.

CIV 231

Estimating & Construction Planning (2)

A systematic approach to estimating building project costs. Term project - building cost estimate. Use of Microsoft Excel spreadsheet as an estimating tool.

1 Class Hour, 3 Laboratory Hours; Prerequisite: CIV 119 Architectural Drafting w/CAD and CST 106 Computers in Technology.

CIV 237

Hydraulics (3)

Hydraulics including properties of fluids, hydrostatics, fluid motion in or through orifices, nozzles, pipes, wires, open channels, pipe branches and networks.

2 Class Hours, 3 Laboratory Hours; Prerequisite: CIV 124 Mechanics (Statics).

CIV 238

Architectural Design & Building Materials w/CAD (3)

Design and detailing of commercial buildings including site considerations, space requirements, layout planning, building materials, construction methods, construction details, working drawings. Emphasis on individual creativity. Semester project. Technical oral presentation. Use of Architectural CAD System for drawings.

2 Class Hours, 3 Laboratory Hours; Prerequisite: CIV 119 Architectural Drafting w/CAD.

CIV 240

Soil Mechanics (3)

Soil origin and nature, soil density, test borings, gradation, compaction, soil water, frost in soil, classification, permeability, shear strength, stress distribution, bearing capacity, piles. The laboratory covers ASTM and AASHTO specifications used in classifying and predicting behavior of soils.

2 Class Hours, 3 Laboratory Hours; Prerequisite: CIV 219 Strength of Materials.

CIV 266

Hydraulics (3)

A basic course in theory and practical applications of hydraulics. Properties of fluids, measurements, hydrostatics, dynamic problems of both pipe and open channel flow. Application and limitations of some of the design aids in common use.

3 Class Hours; Prerequisite: CIV 124 Mechanics or equivalent.

CIV 299

Independent Study (1-4)

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent course allowed per semester. Consideration may be given to a project involving a work assignment.

Prerequisite: Departmental approval.

COLLEGE

COL 105

(1)

An orientation course for first semester Liberal Arts and Related Careers Division students. Students will reflect upon their personal and academic goals, develop learning strategies to enhance their academic success, and acquire a working knowledge of campus services and procedures.

1 Class Hour

COMMUNICATIONS

COM 100

Introduction to Mass Media (3)

Overview of the components of American mass media, including history, structure, economics, regulation, verbal and visual imagery, and dynamics. Radio, television, newspapers, magazines, film, and the closely related advertising and public relations field are surveyed.

3 Class Hours

COM 115

Writing for the Media (3)

An introductory study of the elements necessary for media writing. Students will be exposed to writing formats commonly used in media production. Writing formats covered may include news reporting, TV/radio advertising, drama, documentaries and sports. Students will have the opportunity to utilize their writing skills in many of the aforementioned areas.

3 Class Hours; Prerequisite: ENG 110 Written Expression I.

COM 125

Introduction to Audio Theory and Production (3)

Students will be exposed to audio terminology and production techniques. Equipment discussed and used by students include mics, speaker, mixers, tape recording devices, and a variety of signal processing equipment. Production areas discussed will include radio production and studio production, as well as personal home and automotive systems. Both analog and digital system formats will be introduced.

3 Class Hours

COM 130

Introduction to Video Theory and Production (3)

Introduction to the basic aspects of technical and production techniques of television. Emphasis will be placed on theory and use of television equipment, staging, lighting, television graphics, scripting, basic engineering, distribution systems and studio personnel. In addition to the student produced and directed assignments, members of the class will participate in production crews for final video projects.

3 Class Hours

COM 145

Contemporary Film Analysis (3)

Issues pertaining to film analysis and critique: cinematography, narrative vs. non-narrative structure, symbolism, genre, realism vs. expressionism, composition, editing style. Analysis of contemporary issues through screening and discussion of film/cinema work of all historical periods.

3 Class Hours

COM 150

Public Relations (3)

The course is designed to provide the communications major with a clear picture of the functions of the public relations industry and cite practical applications of public relations principles. Practical examples will be used with emphasis on communications technology presently used throughout the world.

3 Class Hours Lecture

COM 200

Image Theory for Film Photography and Television (3)

Study of important theories of image production and effectiveness. Survey of several significant photographers, filmmakers, and television artists and their work. Emphasis on the formal elements of the still and moving image and their psychological and aesthetic effects.

History and development of visual image production from the pre-technological era to present, with a view toward understanding the universal nature of the need for visual and conceptual expression among all mediums. Role of technology in the creative and aesthetic process, as well as the interplay of artistic and societal goals.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

COM 205

Introduction to Filmmaking (3)

Introduction to the craft of filmmaking and motion picture production. A hands-on approach to the principles of cinematography, including formats, film stocks, lighting, and camera operation. Students will learn the production techniques involved in silent, single-system filmmaking, basic editing, screening techniques, and shooting film for video transfer and post-production. Students will be expected to complete a brief film project either individually or as a group, and must pay their own film and lab fees.

2 Class Hours, 2 Studio Hours; Suggested Prerequisite: ART 112 Beginning Photography or equivalent.

COM 210

Advanced Video Production (3)

This course stresses the application of basic video production theory and techniques as they apply to a variety of productions such as Advertisements, News, Drama, Sports or other such events. Students will be responsible for ideas, scripting, design, production, editing and evaluation of final projects. Both studio and portable systems will be available for student use.

2 Class Hours, 2 Studio Hours; Prerequisite: COM 130 Introduction to Video Theory and Production.

COM 215

Intermediate Filmmaking

A second level filmmaking production course, COM 215 covers selected topics in independent 16mm film production. Topics include cinematography, animation and optical effects, pre-production, sound for film, film to analog video transfer, digital conversion, editing, and post-production. Also covered is introduction to professional practice and protocol including camera assist, lighting and electric, grip, and rigging for film.

Building on skills acquired in COM 205: Introduction to Filmmaking, students will be expected to complete a finished 16mm film including post-production editing, either individually or as part of a larger group project. Students will be expected to learn and demonstrate proficiency with all aspects of equipment and technique for independent 16mm filmmaking.

Students must pay their own film and lab fees.

2 Class Hours, 2 Studio Hours; Prerequisite: COM 205 Introduction to Filmmaking or equivalent experience and permission of instructor.

COM 250

Internship (3)

Placement in a communications related job. Involves in addition to job requirements, directed reading, meetings with the intern supervisor, and written assignments. Most Internships are not paid positions. By advisement only.

COM 299

Independent Study (1-3)

An individual student project concerned with advanced work in a special area of communication. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course. (Requires application and approval.)

Prerequisite: 3 semester hours of college level work in communications. By advisement only.

CRIMINAL JUSTICE

CRJ 101

Introduction to Criminal Justice (3)

Overview of the major components of the criminal justice system: law enforcement, prosecution, trial courts and corrections. A systems approach is utilized with an emphasis on the structure, functions and independence of these and other criminal justice system components.

3 Class Hours

CRJ 105

Introduction to Corrections (3)

Overview of the corrections components of the criminal justice system, tracing the history of corrections in the United States. Relationships and interdependencies of corrections with the court and law enforcement components of the criminal justice system and a discussion of the theoretical basis for the four major types of correctional models.

3 Class Hours

CRJ 115

Juvenile Justice System (3)

Overview of the juvenile system, including the history, process, status and philosophy of the juvenile court. Law enforcement handling of juveniles, various theories of delinquency causation, correctional programs and alternative methods of dealing with juvenile offenders.

3 Class Hours

CRJ 125

Criminal Law (3)

Essential elements of the various crimes under the criminal law. The concepts of culpability and criminal defenses recognized under the criminal law as they relate to murder, rape, robbery, burglary, arson, assault, drug offenses, disorderly conduct and harassment.

3 Class Hours

*CRJ 130

Introduction to Security (3)

Organization and management of the security function in industry, business, government and institutions. The protection of personnel, facilities and other assets, as well as administrative, legal and technical problems of loss prevention and control.

3 Class Hours

CRJ 205

Correctional Law (3)

Overview of correctional law as it relates to prisons, probation, parole, capital punishment, juvenile justice, and sentencing based on leading court cases on these components of the corrections system. Emphasis is placed on the principles of law governing these decisions as they relate to New York Correctional Law.

*CRJ 212W

Criminal Procedure and Constitutional Law (3)

The right to counsel, search and seizure, confessions, lineups, electronic surveillance, probation and parole. Writing Emphasis Course.

3 Class Hours; Prerequisite: ENG 110.

*CRJ 215

Police Administration (3)

Fundamentals of organization, supervision and overall management of police and civilian personnel. Designed to supply a background for the students in dealing with the complexities involved in the management aspect of various police agencies.

3 Class Hours; Prerequisite: CRJ 101 Introduction to Criminal Justice.

*CRJ 225

Security Administration (3)

Administration of public and private security efforts: problems in protection program development and evaluation, functions of various levels of personnel, company/organizational relations, documents and personnel access control, detection systems, devices, and equipment, emergency and disaster planning, new directions in the field of security.

3 Class Hours

*CRJ 230

Criminal Investigation (3-5)

Basic principles of investigation as they relate to the collection, preservation, identification and examination of physical evidence. Techniques for locating and interviewing witnesses and interrogating suspects. (Currently being revised.)

3 Class Hours (BCC); 4 Lab Hours (Corning C.C. Additional tuition and fees). Prerequisite: CRJ 101 Introduction to Criminal Justice.

CRJ 235

Corrections Administration (3)

A survey of the theories and practices of penology in correctional institutions. The physical, educational, and social aspects of incarceration are studied relative to their impact on correctional clients. Principles of management relative to correctional services are explored.

CRJ 240

Community Corrections (3)

An introduction to the history, philosophy, and practices of probation, parole, intensive supervision, community corrections, and other non-institutional corrections treatment settings. The philosophy of community treatment is explained and procedures and processes of supervision as they pertain to the offender are examined.

CRJ 245

Criminology (3)

A study of the general field of criminology considering the general theories of crime causation and the impact crime has on society. Policy implications related to prevention, treatment of victims, and legal intervention are reviewed.

*CRJ 255

Special Topics in Criminal Justice (1-3)

The specific area to be covered will be based upon identified needs and interests of criminal justice students. This course also provides a forum for professional individuals in the criminal justice field with a particular expertise to share their knowledge and skills with students. Special topics have included Criminalistics, Police Community Relations, Drug Law, Current Legal Issues, and Domestic Violence.

1-3 Class Hours; Prerequisites: CRJ 101 Introduction to Criminal Justice.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

CRJ 260
Organized Crime (3)

Role of legal system in organized crime control, preventative methods, political influences; white collar crime, methods of intelligence gathering; relationships of organized crime to community social structure.

3 Class Hours; Prerequisite: CRJ 101 Introduction to Criminal Justice or permission of chairperson.

CRJ 295
Criminal Justice Practicum (3)

Designed as a field experience for students in selected settings (Public Defender, Police Agencies, etc.). Weekly seminars to augment experiences with operations, procedures and policies. Flexible scheduling hours TBA.

CRJ 299
Independent Study (1-3)

An individual student project concerned with advanced level work beyond the scope or breadth of regular courses. A specific area or topic is investigated under the direction of a faculty member. Must be approved by department chairperson and Dean.

Prerequisites: CRJ 101 Introduction to Criminal Justice and 6 credits in CRJ courses.

COMPUTER STUDIES

CST 105
Computer Applications (3)

An introduction to computer concepts and application software using the computer as a problem solving tool. Topics include word-processing, spreadsheets, databases, e-mail, the Internet and Windows 95. Microsoft Office will be used in the laboratory to develop academic, professional, and business applications.

Credit will not be given for both CST 105 and CST 106.

2 Class Hours, 2 Laboratory Hours.

CST 106
Computers in Technology (3)

An introductory course on the use of computers for technology students. Software packages will be used in problem solving and communications. Topics will include Word-processing, Spreadsheets, e-mail, information transfer, presentation packages, and BASIC programming. For students of technology. Credits will not be given for both CST 105 and CST 106.

2 Class Hours, 2 Laboratory Hours.

CST 113
Introduction to C++ (3)

Introduction to the fundamentals of structured programming using C++. Topics may include input-output statements, data types, loop structures, procedures and functions. Lab assignments emphasize program development using modular design and self-documentation.

2 Class Hours, 2 Laboratory Hours; Corequisite: MAT 094 Applications of Algebra with Trigonometry I or MAT 096 Elementary Algebra and Trigonometry.

CST 117
Language Independent Design Tools (2)

An introduction to proper design techniques for structured programming languages. This course presents several Language Independent design tools. Topics covered include: problem solving techniques, modular design, logic flow representation techniques, how to perform a proper trace, subroutines, Binary and Hexadecimal arithmetic, and other fundamentals of software engineering.

2 Class Hours; Pre or Corequisites: MAT 094 Applications of Algebra with Trigonometry I or MAT 096 Elementary Algebra and Trigonometry.

CST 119
Computer Concepts and Applications (3)

A foundation course for computer studies majors who have had some exposure to computers. The lecture covers basic concepts in computers, the lab introduces the major end user software tools. Content includes computer hardware: input and output devices, memory, CPU, classification of computers; networks; historical development; social and ethical implications of computer: employment, crime, privacy. Lab exercises include word processing, database, spreadsheets, graphics, and various operating systems, and the Internet. Students should have completed a high school computer science course or the equivalent.

2 Class Hours, 2 Laboratory Hours; Prerequisite: High School Computer Course or equivalent; Corequisite: MAT 094 Applications of Algebra with Trigonometry I or MAT 096 Elementary Algebra and Trigonometry.

CST 120
Java Programming (3)

An introductory programming course in the JAVA language. Topics include data types, program control, input/output, arrays and structures. JAVA programs are created for World Wild Web use and as standalone applications. Students will be introduced to Windows concepts such as menus and dialog boxes.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CST 119 Computer Concepts and Applications.

CST 128
Structured Programming in COBOL (4)

Problem solving using the structured programming techniques of COBOL. Top down design is emphasized. Programming steps include program definition, structure charts, coding, debugging, testing and validation, documentation and program maintenance. Topics include file handling, looping, program modularization, control breaks, tables, and interactive programming. Lab assignments reflect common business applications.

3 Class Hours, 2 Laboratory Hours; Prerequisite: Programming experience. Corequisite: MAT 094 Applications of Algebra with Trigonometry I or MAT 096 Elementary Algebra and Trigonometry.

CST 133
Structured Programming in C++ (4)

Problem solving using the structured programming techniques of C++. Top down design and modular structure will be emphasized. Programming steps include program definition, structure charts, coding, debugging, testing and validation, documentation, program maintenance. Topics covered include loop structures, procedures, functions, scalar and ordinal types, arrays, records, and text files. Lab assignments will require modular structured programming.

3 Class Hours, 2 Laboratory Hours; Prerequisite: MAT 094 Applications of Algebra with Trig. Programming experience. Pre-corequisite: CST 117.

CST 135
Introduction to the Internet and World Wide Web (1)

This course is an introduction to the use and practices of the Internet and World Wide Web. The course teaches how to access the Internet and WWW, as well as an introduction to HTML. Software and hardware requirements are discussed along with various search techniques. Advantages and disadvantages will be considered.

3 Class Hours for 5 weeks.

CST 136
Computer Maintenance (1)

This course teaches the principals of good computer maintenance. Techniques include hardware and software installation and specifications. Hard disk management is taught with an eye toward managed backups and restores. Trouble shooting is covered for both hardware and software problems.

3 Class Hours for 5 weeks.

CST 137
Introduction to Multimedia (1)

This course serves as an introduction to multimedia concepts and techniques. Topics include how to select hardware and software to complete a good multimedia system. Multimedia components will also be evaluated in terms of their educational and commercial uses.

3 Class Hours for 5 weeks.

CST 150
C++ Programming with Objects (3)

This course assumes a complete understanding, and experience with High-Level Language programming concepts. The course quickly takes the student through necessary C++ syntax, on to more advanced topics. Topics covered will include: C++ overview, variables, constants, program control, I/O, functions, preprocessors, arrays, structures, pointers, classes, and object-oriented programming.

3 Class Hours, 2 Laboratory Hours; Prerequisite: CST 133 Structured Programming in C++, with a minimum a minimum grade of "C" or better.

CST 158
Spreadsheets With Financial Applications (3)

A comprehensive course in spreadsheet development and design with a focus on financial applications using Excel. Advanced topics include object linking and embedding, goal seeking, look up tables, data tables, multiple worksheets, managing scenarios, rational databases including dynamic data exchange and application development with Macros and Visual Basic. Financial applications include basic financial statements, loan payments, cash flow analysis, capital budgeting, break-even analysis, and inventory management.

2 Class Hours, 2 Laboratory Hours; Prerequisite: MAT 094 Applications of Algebra with Trigonometry I or MAT 096 Elementary Algebra and Trigonometry, and introduction to computing course.

CST 160
ADA Programming (3)

Introduction to module programming techniques using the ADA programming language. Presentation of the SYNTAX of the language. Emphasis will be made on the unique features of this language which includes generic subprograms and packages, private and access types, tasking, parallel computation and exception handling.

2 Class Hours, 2 Laboratory Hours; Prerequisite: MAT 146 Introduction to Calculus or equivalent and one of the following: CST 133 Structured Programming in C, CST 128 Structured Programming in COBOL, or permission of the instructor.

CST 170
Digital Logic (3)

Comprehensive coverage of basic gates, Boolean algebra, Karnaugh mapping and Quine McCluskey technique for circuit simplification. Adders, subtractors, multiplexers, code converters, asynchronous and synchronous counters presented in detail as basic computer building blocks. Analog-digital and digital-analog interfacing. Lab exercises utilize TTL and CMOS chips.

2 Class Hours, 2 Laboratory Hours; Prerequisite or Corequisite: CST 133 Structured Programming in C and CST 117 Language Independent Design Tools.

CST 200

Systems Analysis and Design (3)

A first course dealing with the principles of systems analysis and problem solving, concentrating on investigation and analysis of systems and their resulting design. Emphasis on the importance of standards, procedures, documentation and design tools. A variety of group and individual lab assignments will include analysis and design tools, prototyping and CASE.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CST 128 Structured Programming in COBOL or CST 133 Structured Programming in C and CST 119.

CST 202

Data Structures with C^{++} (3)

This course assumes a complete understanding, and experience with the C^{++} programming language. The course gives the student the necessary design philosophies, fundamental syntax, and experience with, advanced programming concepts. Topics covered include: static and dynamic data structures, arrays, structures, files, linked lists, stacks, queues, trees, and directed graphs. Structured, modular programming, and extensive documentation is required. Writing Emphasis Course.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CST 150 C^{++} Programming with Objects with a minimum grade of "C" or better.

CST 208

Introduction to Networking (3)

This course is designed to teach the fundamentals of good network design and implementation. Students will investigate hardware, software and wiring as they relate to networking. Various network protocols and operating systems designed for networking will be investigated. Topics will also include networking topology and security.

3 Class Hours; Prerequisite: CST 119 Computer Concepts and Applications.

CST 213

Database Systems (3)

A comprehensive course in database management with a focus on the effective use of database systems, database design, and application development with Access and Visual Basic. Topics will include database concepts and architecture for both micro and mainframe computers, creating tables, queries, forms and reports, object linking and embedding, SQL, macros, Visual Basic programming, integrity constraints, concurrency control, and transaction processing.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CST 119 and an introduction to programming course.

CST 215

Systems Development (3)

The design, implementation and support of information systems, with a special emphasis on the development of database applications using Access and Visual Basic programming. Topics will include an overview of the systems development life cycle, the use of prototyping and CASE tools, structured design, object-oriented design and programming, system testing, conversion and maintenance. Students will work in teams to develop a complete application.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CST 213 with a grade of "C" or better and an introductory programming class.

CST 216

Visual Basic for Programmers (3)

This course teaches the fundamentals of the Visual Basic language. The first part of the course concentrates on a detailed discussion of various Visual Basic controls, programming options and the use of Visual Basic tools. Once these concepts are mastered, the emphasis shifts toward integrating the various components into complete working applications. Emphasis will be placed on visual interfaces as well as problem solving.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CST 128 Structured Programming in COBOL or CST 133 Structured Programming in C.

CST 218

Advanced COBOL (3)

A second course in the use of the COBOL language as a means of implementing computerized solutions to business & information processing problems. Topics include batch and interactive processing, various file access techniques, use of advanced language statements and common utilities such as library functions, copy statements and subprograms. Writing Emphasis Course.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CST 128 Structured Programming in COBOL with "C" grade or better.

CST 220

Microprocessors and Assembly Language Programming (3)

This course includes an introduction to the 32-bit Intel architecture with programming techniques utilizing the Intel microprocessor and coprocessor family. Concepts include: programming modes, branching, flags, stacks, procedures, macros, interrupts, arithmetic and logic operations, multiple precision arithmetic and string operations. Extensive laboratory work is done on small systems.

2 Class Hours, 2 Laboratory Hours; Prerequisite: One structured programming language; Co- or Prerequisite: CST 170 Digital Logic.

CST 222

Special Topics in Computing (3)

Topics in this course will acquaint students with current techniques in programming and interfacing. Course topics to be determined by CST department at beginning of each semester.

CST 225

Introduction to Small Systems (3)

Introduction to the concepts and implementation of small computer systems. Topics include hardware and software techniques, keyboards, display terminals, printers, graphics magnetic storage, disk drives, disk operating systems, telecommunications techniques, and networking. Extensive use of a small system in the laboratory will reinforce classroom concepts. Writing Emphasis Course.

2 Class Hours, 2 Laboratory Hours; Prerequisite: CST 220 Microprocessors and Assembly Language Programming and CST 133.

CST 228

GDI Programming with C/C^{++} (3)

This course is a natural extension of CST 150, C/C^{++} Programming for Programmers. The course teaches Graphics Device Interfacing (GDI) with Windows 98 and Windows NT Programming Concepts. Topics include programming advantages of a GDI environment, concepts and techniques. Icons, cursors, bitmaps, fonts, menus, dialog boxes, etc. are integrated into the GDI environment. Extensive programming and laboratory work matches the lecture topics. Writing emphasis course.

2 Class Hours, 2 Laboratory Hours; Prerequisites: CST 150 CC^{++} Programming with Objects.

CST 297

Cooperative Work Experience (1-3)

Cooperative education in computing may be available. On-the-job experience may be obtained by working with business, industries, and offices whose operations require the use of computers. To be eligible a student must maintain a cumulative grade point average of 2.5 with a 3.0 average in CST courses and have no "F" grades.

CST 299

Independent Study (1-3)

The student undertakes an independent project, under the guidance of a faculty member, which is beyond the scope of courses currently offered by the department. Only one independent study project allowed per semester.

COMMUNITY INTERNSHIP

CTP 270

Seminar and Practicum in Peer Education

The approach of this seminar will be both theoretical and experiential. Students will focus on educational institutions and issues from a sociological and a political point of view as well as basic methods of teaching and tutoring through reading, class discussion, and informal and formal writing assignments. Class participants evaluate theories and concepts through at least 48-52 contact hours of tutoring with students in one of the many practical tutoring situations available on campus or in the community. Recommended for those interested in careers in education.

CTP 275

Community Internship (3)

For qualified students who seek an internship experience in order to explore or validate a career choice, or to render volunteer service to the community. Placements are available in non-profit, govt. or social service agencies as well as in public education and local hospitals.

1 Class Hour; 6-9 hours per week; Prerequisite: 24 credit hours, application, interview, good academic standing. Satisfies the Civic Education requirement.

DENTAL HYGIENE

DEN 101

Dental Hygiene I (4.5)

Introduction to skills utilized in the contemporary practice of dental hygiene, including infection control procedures, patient assessment and treatment. Theory is applied in preclinic setting on student patients.

2 Class Hours; 8 Lab Hours; Corequisite: DEN 108 Infection Control in Dentistry.

DEN 102

Dental Hygiene II (5.5)

Continuation of DEN 101 Dental Hygiene I. Theory in dental hygiene care including assessment, planning, implementation and evaluation of patient care including patients with special needs, tobacco cessation intervention, emergency medical and dental procedures and oral physiotherapy and oral health instruction. Theory is writing emphasis. The clinical experience emphasizes patient assessment, treatment planning, instrumentation and oral health instruction.

3 Class Hours, 8 Clinic Hours; Prerequisites: DEN 101 Dental Hygiene I, DEN 103 Oral Anatomy and Physiology and DEN 108 Infection Control in Dentistry; BIO 131 Human Biology I or permission of the Department; CPR Certification AHA Provider C.

DEN 103

Oral Anatomy and Physiology (3)

Normal structure and function of the oral cavity (microscopic and gross). Laboratory work provides experience with microscopic and macroscopic study of structures in the oral cavity, head and neck.

2 Class Hours, 3 Laboratory Hours.

DEN 106
Clinical Dental Radiography (2)

Radiation physics and biology; understanding of radiation health, safety and protection; radiographic quality, intraoral dental radiographic techniques, film processing and mounting, interpretation of radiographic errors and recognition of anatomical landmarks. Theory is applied in the laboratory setting on radiographic dexters and adult patients.

1 Class Hour, 2 Lab Hours; Prerequisites: DEN 101 Dental Hygiene I, DEN 103 Oral Anatomy and Physiology, DEN 108 Infection Control in Dentistry, BIO 131 Human Biology I or permission of the instructor.

DEN 107
Introduction to Periodontology (1)

Introduction to pathology of the periodontium of the teeth, including etiology, recognition and description of gingivitis and periodontitis. This course provides an introduction to periodontology.

1 Class Hour; Prerequisites: DEN 101 Dental Hygiene I, DEN 103 Oral Anatomy and Physiology, DEN 108 Infection Control in Dentistry.

DEN 108
Infection Control in Dentistry (1)

Theory in infection control in the dental hygiene practice, including responsibility for infection control practices, transmission of disease and methods for preventing disease transmission for the hygienist and patient.

1 Class Hour; Corequisite: DEN 101 Dental Hygiene I.

DEN 109
Ethical/Legal Considerations (1)

Ethics and ethical issues; jurisprudence and legal considerations including risk management in dentistry and dental hygiene.

1 Class Hour.

DEN 110
Dental Materials (2)

Composition, chemical and physical properties and use of materials in dental laboratory and operatory. Laboratory sessions will provide experience in performing common dental laboratory procedures including their clinical application of expanded functions.

1 Class Hour, 3 Laboratory Hours; Prerequisite: DEN 103 Oral Anatomy and Physiology and DEN 108 Infection Control in Dentistry.

DEN 201
Dental Hygiene III (6)

Continuation of DEN 102 Dental Hygiene II. Integration of theory with clinical experience in various oral hygiene preventive and therapeutic procedures. Emphasis on planning and execution of the total patient treatment.

2 Class Hours, 12 Clinic Hours; Prerequisites: DEN 102 Dental Hygiene II, DEN 106 Clinical Dental Radiography, DEN 107 Introduction to Periodontology, DEN 110 Dental Materials, BIO 131 Human Biology I and BIO 132 Human Biology II and BIO 150 Microbiology; CPR Certification AHA Provider C

DEN 202
Dental Hygiene IV (6)

Continuation of DEN 201 Dental Hygiene III. Comprehensive clinical experience in all phases of dental hygiene practice. Introduction to computer use in the dental office management.

2 Class Hours, 12 Clinic Hours; Prerequisites: DEN 201 Dental Hygiene III, DEN 204 General and Oral Pathology, DEN 205 Periodontology, DEN 206 Dental Pharmacology and DEN 209 Nutrition

DEN 204
General and Oral Pathology (3)

Broad picture of the disease process through the study of common general diseases, their cause, results and treatment. Emphasis on the principles of inflammation, healing and repair, oral disease, their causes, recognition and treatment.

3 Class Hours; Prerequisites: DEN 102 Dental Hygiene II, BIO 132 Human Biology and BIO 150 Microbiology or permission of the instructor.

DEN 205
Periodontology (2)

Overall study of the pathology of the supporting structures surrounding the teeth. Special emphasis on recognition and treatment of the periodontal patient within the scope of the dental hygienist.

2 Class Hours; Prerequisites: DEN 102 Dental Hygiene II, DEN 106 Clinical Dental Radiography, BIO 132 Human Biology II and BIO 150 Microbiology or permission of the instructor.

DEN 206
Dental Pharmacology (2)

Pharmacology as it affects the clinical practice of dental hygiene and dentistry. Drugs commonly used in dentistry and correct methods for their use. Emphasis on pharmacological aspects of anesthesia.

2 Class Hours; Co-requisite: DEN 201 Dental Hygiene III or permission of the instructor.

DEN 209
Nutrition (3)

Basic nutrition principles, including metabolism, functions, sources, and conditions resulting from excessive or inadequate intake of each nutrient. Study of diet planning, dietary guidelines, weight control, and current nutrition topics and controversies. Special emphasis on the relation of nutrition to the oral cavity, interviewing, nutritional counseling, computer aided dietary analysis, and its practice in the dental office.

3 Class Hours.

DEN 213
Public Health (3)

Principles of public health and fundamentals of assessing, planning, implementing and evaluation of public health care with emphasis on community dental health. Laboratory experience emphasizes reading scientific literature, statistics, community health education, and community health agencies.

2 Class Hours, 2 Laboratory Hours; Prerequisite: DEN 102 Dental Hygiene II.

DEN 214
Current Topics In Dental Hygiene (3)

Topics relevant to contemporary practice of dental hygiene including identification and reporting of child abuse and the hygienist's role in the care of special patients. Emphasis is on case-based learning.

3 Class Hours; Prerequisite: DEN 201 Dental Hygiene III or permission of the instructor.

DEN 298/299
Independent Study — Fall/Spring (1-3)

Advanced studies in Dental Hygiene conducted under the guidance of a Dental Hygiene instructor.

Prerequisites: DEN 101, 102 Dental Hygiene I and II and permission of Department Chairperson.

DIETARY MANAGER

DIA 101
Nutrition (3)

The functions and sources of nutrients. Digestion, absorption and utilization of food as well as nutrient needs across the life-cycle. Various foods, preferences and customs, as well as dietary guidelines and symptoms of nutrition deficiency and excess will be discussed. Topics relating to therapeutic nutrition; dietary policies and procedures; dietary laws; food, labor and health regulations will also be covered.

3 Class Hours

DIA 103
Dietary Management Field Experience I (3)

125 hours of reality-oriented learning activities scheduled to coordinate with classroom experience, outside the college classroom. The experience must be in a health care setting which provides activities in the curriculum content area. The on-site preceptor must be a registered dietitian with no less than two years full time equivalent post-registration practitioner competency. Students are responsible to find willing preceptors and appropriate employment.

Prerequisites or Co-requisites: DIA 101 Nutrition, BHM 110 Sanitation and Safety, BHM 216 Quantity Food Production, BHM 235 Hotel/Restaurant Cost Control.

DIA 204
Dietary Management Field Experience II (3)

125 hours of reality-oriented learning activities scheduled to coordinate with classroom experience, outside the college classroom. The experience must be in a health care setting which provides activities in the curriculum content area. The on-site preceptor must be a registered dietitian with no less than two years full time equivalent post-registration practitioner competency. Students are responsible to find willing preceptors and appropriate employment.

Prerequisites or Co-requisites: DIA 101 Nutrition, DIA 103 Dietary Management Field Experience I, BHM 110 Sanitation and Safety, BHM 216 Quantity Food Production, BHM 235 Hotel/Restaurant Cost Control, BUS 248 Human Resource Management.

DIRECT MARKETING

DMR 110
Direct Marketing (3)

This course is a specialty within the field of theoretical marketing, and focuses on those components unique to Direct Marketing: Channels of Distribution and Promotion, and the Development of Databases, as a means of product and service delivery to specifically identified customers. The course concentrates on the interactive system of direct marketing that uses one or more advertising media to effect a measurable response at a specified location. It incorporates those aspects of Direct Marketing related to successfully identifying both Final and Organizational Consumer needs, as well as the direct mode of delivery and promotion to accomplish established goals.

3 Hours Lecture per week; 3 Semester Credits; Prerequisite: BUS 141 Marketing or permission of the instructor.

DMR 195
Qualitative Marketing Research Methodologies (3)

This course integrates the social sciences and business in a mutual focus toward an interpretive, qualitative, approach to conducting research. Qualitative methodologies in research models utilize structured and unstructured interviewing, such as brainstorming, nominal group techniques, focus groups, as well as survey design and other textual analysis and ethnography. This qualitative approach to solving business problems will combine the social sciences and humanities in the generation and interpretation of data linking business research to social and economic change. This will help students more fully understand the technological revolution and the relationship of the business researcher to research beyond the statistical models most commonly used.

3 Hours Lecture per week; 3 Semester Credits; Prerequisite: BUS 238 Marketing Research.

DMR 210
Data Base Information Management for Marketing (3)

This course emphasizes three levels of Electronic Data Base Management: Targeting and profiling techniques; segmentation strategies; and data and list sources/issues. Various aspects of data merge-match problems and solutions are examined, as well as development of yardsticks for measurement and testing resulting materials.

3 Hours Lecture per week; 3 Semester Credits; Prerequisite: BUS 238 Marketing Research.

EARLY CHILDHOOD

ECE 101
Introduction to Family Day Care (1)

Introduction of principles of regulated family day care including preparing the home as a learning setting, activity planning and guidance of mixed age groups, small business management and parent/provider relationships.

3 Class Hours - 5 Weeks

ECE 102
Introduction to Working in School Age Child Care (1)

Developmental characteristics of 5-12 year olds, programming for that age in extra-school settings, preparing the environment for safety and learning, and appropriate guidance of school age children in groups.

3 Class Hours - 5 Weeks

ECE 103
Introduction to Working With Special Needs Children (1)

Overview of recognizing, understanding and helping children with special needs to be included in early childhood programs as well as dealing with parents and referral agencies.

3 Class Hours - 5 Weeks

ECE 110
Introduction to Early Education (3)

Introduction to preschool and primary education. An overview of career options in professional education, child development, learning theories with a historical perspective, parent involvement, and contemporary issues in education including diversity. Classroom observations required. Required for Early Childhood and Elementary Education Majors.

3 Class Hours

ECE 115
Music for Young Children (3)

Basics of music theory, development of resources of songs and movements to be used in early childhood settings. Class participation is a vital part of this class.

3 Class Hours

ECE 120
Curriculum Development (3)

Methods and materials for planning developmentally appropriate curriculum for young children, including art, music, creative movement, language, mathematics, science, nutrition, manipulative play, dramatics and early literacy. Practice activities in local child care settings.

3 Class Hours; Prerequisite: ECE 110 Introduction to Early Education.

ECE 140
Art for Young Children (3)

In-depth coverage of art education as it contributes to the pre-school child's emotional, physical and psychological growth. Needs of pre-schoolers in this area and ways to foster creativity and skill acquisition. Materials and methods appropriate for this age.

3 Class Hours.

ECE 150
Motor Development (3)

Designed to give the student an understanding of normal motor development and how it relates to cognitive and perceptual development. Students will develop curriculum in motor development for young children.

3 Class Hours

ECE 175
Techniques of Observation and Evaluation (3)

Develops skills and methods of observing young children in structured and unstructured situations. Covers ethics, interpretations of children's behavior in light of development. Implications of evaluations. Required of Early Childhood Majors.

3 Class Hours

ECE 180
Child Health and Safety and Nutrition (3)

Designed to help students become aware of techniques for promoting general health care and safety standards at children's centers.

3 Class Hours

ECE 185
Child Guidance – Infants and Toddlers (1)

Moral and social development is the basis for establishing and maintaining cooperative behaviors in infants and toddlers for persons caring for them in groups. Non-punitive, internal control strategies will be presented.

3 Class Hours - 5 Weeks

ECE 186
Guidance of Preschoolers (1)

Moral and social development is the basis for establishing and maintaining cooperative behavior in preschoolers for persons caring for them in groups. Non-punitive, internal control, problem-solving strategies will be presented.

3 Class Hours - 5 Weeks

ECE 187
Child Guidance – Primary Age Children (1)

Moral and social development is the basis for establishing and maintaining cooperative behaviors in school age children K - grade 3 for persons caring for them in groups. Non-punitive, internal control strategies will be presented.

3 Class Hours - 5 Weeks

ECE 190
Infants, Toddlers and the Family (3)

Developmental milestones of children under 3 years old are the basis for planning individualized activities and preparing quality environments, appropriate practices in centers and homes are examined with emphasis on sharing the caring relationships between parents and providers.

3 Class Hours

ECE 200W
Field Experience I (4)

Group seminar meets weekly to guide the student in the role of the teacher in the early childhood setting. Site placements are assigned for practical experience under supervision, working with young childrfen for 12 weeks. Novice, experienced and employed students are observed by college supervisor.

Prerequisite: 30 hours of counseled coursework including ECE 120.

ECE 201
Field Experience II (4)

Group seminar meets weekly to further develop professional practice. Site placements are assigned for practical experience under supervision, working with young children for 12 weeks. Novice, experienced and employed students are observed by college supervisor.

Prerequisite: 30 hours of counseled coursework including ECE 120.

ECE 210
Special Needs Children in Early Childhood Programs (3)

Identification and implications of state mandates for children with special needs. Explores the principles and practices of facilitating the learning of special needs children in group settings. Parents role in educational plan.

3 Class Hours; Prerequisite: PSY 211 Child Development (Concurrent Enrollment Considered).

ECE 220
Issues and Innovations in Early Childhood Education (3)

An overview and insight into various philosophies and materials of education for young children, including Montessori, Piaget, open education (comparing English and American schools), affecting education, behavior modification.

3 Class Hours; Prerequisite: ECE 110 Introduction to Early Education.

ECE 221
Multi-Cultural Perspectives (1)

Methods of teaching and caring for children with unique cultural backgrounds, traditions, and practices. Helps to understand that since young children are increasingly aware of color, language, and gender differences, it is important to assist in building confident self-images that view differences with respect.

3 Class Hours - 5 Weeks

ECE 222
Community Resources (1)

Ways to find and utilize various community agencies, resources and programs that assist parents, children, and professional caregivers to obtain, integrate and use information, services, and benefits associated with child-care and pre-school centers.

3 Class Hours - 5 Weeks

ECE 223
Discipline Techniques (1)

Effective guidance and management methods used to develop acceptable behavior by children in the classroom or institutional setting.

3 Class Hours - 5 Weeks

ECE 224

Pre-School Mathematics (1)

Methods and materials used to present age-appropriate arithmetic and counting skills to pre-school children.

3 Class Hours - 5 Weeks

ECE 225

Pre-Reading (1)

Will focus on language behaviors and development of communication patterns upon which to foster the beginning of reading skills in pre-school children.

3 Class Hours - 5 Weeks

ECE 226

Pre-School Science (1)

Methods and materials used to present age appropriate science concepts to pre-school children.

3 Class Hours - 5 Weeks

ECE 230

Working With Parents in Early Childhood Programs (3)

Designed to introduce importance of family involvement in the education of the young child. Benefits for teachers and parents and child when working together. Various aspects of working with parents, such as home visiting, group parent meetings, newsletters and written communications, parent conferences and the use of volunteers in the classroom.

3 Class Hours

ECE 245

Social Development of Young Children (3)

Explores the developmental, environmental and temperamental aspects of the socialization process. Topics include aggression, cooperation and sharing, moral development, peer interaction, sex-role development, communication in the classroom.

3 Class Hours

ECE 250

Language in Early Childhood (3)

A developmental study of language growth in young children and its influence on learning (cognitive abilities, social and behavioral concepts). Contemporary language theories and programs including a diagnostic approach to teaching language (communications skills, reading readiness and literature appreciation) in the pre-school. The student will be expected to spend a number of hours in a special project requiring observation of individual children and language arts program.

3 Class Hours

ECE 255

Special Topics in ECE (1-3)

Specific topics are based on need of ECE students and/or community. Provides a forum for EC professionals to share their unique knowledge and skills with students. Recent topics have included: Multi-cultured perspectives, community resources, Math for Young Children, pre-reading, and Discipline Techniques.

1-3 Class Hours; Prerequisite: ECE 110 or permission of the department.

ECE 260

Management and Administration of Early Childhood Programs (3)

Overview of Early Childhood Program administration to include: Principles of management like planning, organizing, directing, and evaluating as uniquely applied to regular and special programs. Staff development, financial, and personnel policies relating to operation and administration of various types of centers.

3 Class Hours; Prerequisite: ECE 110.

ECE 299

Independent Study in Early Childhood (1-3)

An individual student project in child care beyond the scope of requirements offered by the department. Under the direction of a faculty member and approved by the program coordinator and department chairperson and Dean. No more than three credits may be acquired toward the Early Childhood degree in independent study projects.

1-3 Class Hours; Prerequisite: 6 Semester hours in Early Childhood courses.

ECONOMICS

ECO 110

Micro-Economics (3)

An introduction to key economic concepts which relate to the market mechanism, supply and demand, the allocation of scarce resources, consumer behavior and the behavior of firms. We all live in a world where choices are made and those choices always involve economic costs and consequences.

Prerequisite: ENG 110 (this is always a "W" course); 3 Class Hours; satisfies the Civic Education requirements.

ECO 111

Introduction to Macro-Economics (3)

Causes of unemployment and inflation and the government's efforts to control them. Problems of economic growth as they relate to our economy and the other countries, developed and underdeveloped. International trade and finance problems.

3 Class Hours

ECO 299

Independent Study - Economics (1-3)

An individual student project in economics which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisite: 3 Semester Hours in Economics.

ELECTRICAL

EET 110

Introduction to Electricity (4)

Basic electrical circuit elements including voltage sources, light bulbs, resistors, heater elements. Simple series, parallel, and series-parallel resistive circuits. Introduction to complex circuit analysis. Use of basic meters to measure voltage, current, and resistance. An introduction to the oscilloscope. Reading charts and tables. Use of laboratory equipment to measure current, voltage, and resistance in a multiple load circuit with emphasis on proper data recording.

4 Class Hours

EET 111

Electrical Construction Laboratory I (2)

Basic knowledge about today's electrical equipment. Experience in the installation, fabrication and maintenance of electrical equipment by means of "hands on" approach. Shop safety and the National Electrical Code. Basic residential and commercial wiring procedures, basic measuring techniques, fundamentals of basic machine operations.

1 Class Hour, 3 Laboratory Hours.

EET 112

Electrical Construction Laboratory II (1)

Advanced wiring methods, fractional horsepower motor and appliance troubleshooting, introduction to residential and commercial lighting and power layout design.

3 Laboratory Hours; Prerequisite: EET 111 Electrical Construction Laboratory I.

EET 115

Introduction to Digital Logic (3)

An introduction to computer digital logic including number systems, logic gates, flip flops, counters, memories, and the basic computer.

3 Class Hours

EET 116

Introduction to Technology (3)

A presentation of electrical and computer topics including an explanation of how things work: electricity, telephones, including cellular, radio, television, satellite systems, computer, computer programs, robotics, modems, bar code readers, automobile ignition systems, and other modern conveniences. An introduction to the use of the computer and the Internet as a tool for presenting and finding information from a diverse array of subject areas. Students will use the college mainframe and PC based computers to find technically related information for report writing.

2 Class Hours, 2 Laboratory Hours.

EET 121

Electrical Circuits & Laboratory (4, 1)

Fundamentals of electrical circuits and application of circuit laws, theorems and measuring techniques to both DC and AC single and polyphase circuits.

4 Class Hours, 3 Laboratory Hours; Prerequisite or Corequisite: MAT 150 College Technical Mathematics or equivalent.

EET 122

Electrical Circuits - IS (4)

Study of DC and AC circuitry using circuit theorems, and the analysis of passive circuits including R-L-C impedances, phase angles, resonance, and transformers. The course integrates a lab experience to provide necessary hands on experience.

4 Class Hours

EET 125

Circuits I (3)

DC circuits, including loop and nodal analysis, superposition, Thevenin's and Norton's theorems, RL and RC time constants.

2 Class Hours, 2 Laboratory Hours; Prerequisite or Corequisite: MAT 098 Applications of Algebra with Trigonometry II or equivalent.

EET 126

Circuits II (3)

A continuation of the study of circuits concepts related to single- and three-phase alternating current. Resonance, network analysis, power.

2 Class Hours, 2 Laboratory Hours; Prerequisite or Corequisite: MAT 150 College Technical Mathematics or equivalent and EET 125 Circuits I.

EET 130

Engineering Drawing (1)

Principles of projection. Development of drafting skills, lettering and proper line construction. Dimensioning and tolerancing, with an emphasis on shop processes. Use of auxiliary views and sectioning. Preparation of assembly drawings, materials lists, schematic and wiring diagrams. To introduce the power and versatility of a computer aided design (CAD) program.

3 Laboratory Hours

EET 149
Control Systems - IS **(4)**

Theory, operation, design and implementation of open and closed loop control systems, including mathematical modeling and stability prediction. Theory and applications of both analog and digital control system input/output. Introduction to robotics and process control techniques.

4 Class Hours

EET 150W
Electronic Devices & Laboratory **(4, 1)**

A first course in Electronics introducing the active devices fundamental to the field. Introduction of semiconductor diodes, bipolar and field effect transistors, thyristors, optoelectronic devices, operational amplifiers, and microprocessors. Design and analysis of representative circuits based on these building blocks. Competency in a scientific computer language is required and is applied to generate software for design and analysis of related circuits.

4 Class Hours, 3 Laboratory Hours; Prerequisites: MAT 150 College Technical Math and CST 106 Computer Applications and EET 121 Electrical Circuits & Laboratory.

EET 151
Electronics I - IS **(4)**

Study of active devices, their characteristics and uses in different types of electronic circuitry. Diodes, transistors, and FET's will be studied in detail. The course integrates a lab experience to provide necessary hands on experience.

4 Class Hours

EET 152
Electronics II - IS **(4)**

The study of differential amplifiers, operational amplifiers, oscillators, high frequency amplifiers, and A/D circuitry, along with input and output impedances and frequency response. Circuits will be analyzed using computer simulations. The course integrates a lab experience to provide necessary hands on experience.

4 Class Hours

EET 162
Computer Aided Network Analysis **(3)**

Computer analysis of complex electric and electronic networks by application of network theorems and application of software as needed. Use of the C programming language to display the response of two port networks. Use of the computer programming to apply matrix methods to the analysis of complex circuits and the solution of network problems.

3 Class Hours; Prerequisites: CST 106 Computers in Technology and EET 121 Electrical Circuits & Laboratory and MAT 150 College Technical Math.

EET 168
Digital Electronics 1 - IS **(4)**

The study of digital circuitry and application of digital theorems to the design of digital projects. Number systems, Karnaugh Maps, flip flops, counters, shift registers, and EPROMS's are covered. The course integrates a lab experience to provide necessary hands on experience.

4 Class Hours

EET 169
Digital Electronics 2 - IS **(4)**

The study of digital computer systems including microprocessors, memory, I/O devices, displays, and printers. Interfacing peripherals, data communications, and a team project are a part of the course. The course integrates a lab experience to provide necessary hands on experience.

4 Class Hours

EET 181
Installation and Maintenance of Electrical Motors **(2)**

Theory, operation and application of electrical machines and control systems as related to industry. Installation, maintenance and troubleshooting of electrical motors and control systems will be emphasized.

1 Class Hour, 2 Laboratory Hours

EET 182
Applied Electricity - IS **(4)**

Practical applications of electrical circuits and machines. Topics include a-c and d-c circuits, machines, and controllers, and single- and three-phase circuits and transformers. Laboratory work inlcudes demonstration of basic electrical concepts using measuring instruments such as digital multimeters, oscilloscopes, function generators, counters, wattmeters, and bridges.

4 Class Hours

EET 183
Applied Electricity **(3)**

Practical applications of electrical circuits and machines. Topics include AC and DC circuits, machines and controllers, and single- and three-phase circuits and transformers. Laboratory work includes demonstration of basic electrical concepts using measuring instruments such as digital multimeters, oscilloscopes, function generators, counters, wattmeters and bridges.

2 Class Hours, 3 Laboratory Hours; Prerequisite or Corequisite: MAT 150 College Technical Math or equivalent and PHY 162 Physics II.

EET 185
Electronics - IS **(4)**

Practical applications of electronic concepts as applied to solid state devices, amplifiers, power supplies, oscillators, timers, flip-flops, and basic logic devices, and microprocessors. Laboratory work includes practical applications of concepts by students, operation of common electronic instruments such as oscilloscope, curve tracer, function generator, and counter.

4 Class Hours

EET 186
Electronics **(3)**

Practical applications of electronic concepts as applied to solid state devices, amplifiers, power supplies, oscillators, timers, flip flops and basic logic devices and microprocessors. Laboratory work includes practical applications of concepts and operation of common electronic instruments such as oscilloscope, curve tracer, function generator and counter.

2 Class Hours, 3 Laboratory Hours; Prerequisite: EET 183 Applied Electricity.

EET 189
Surface Mount Technology - IS **(4)**

A study of materials, procedures, and processes related to surfacemount electronics manufacturing. Included are design and manufacturing standards, component placement soldering, cleaning, testing, inspecting, and real time process control.

4 Class Hours

EET 201/202
Senior Seminar **(0, 0)**

A weekly lecture series intended to make the student aware of the changing elements of the Electrical, Electronic and Computer industry and help the student focus on areas of concern presented by industry experts. Where appropriate, emphasis will be placed on the responsibility by technologists to society as a whole in the area of ethical and moral values. Topics may include Quality Assurance, Ethics in Engineering, Artificial Intelligence, Telecommunications, Robotics, Power Engineering, Modeling and Simulation, CIM, Interpersonal Communications, Statistics.

1 Class Hour; Prerequisites: ENG 110 Written Expression and MAT 150 College Technical Math.

EET 210
Applied Electricity and Electronics **(4)**

Practical applications of electrical circuits and machines. Topics include a/c and d/c circuits, simple motors and single- and three-phase circuits and transformers. Practical applications of electronic concepts will include the amplifier, oscillator, and basic logic devices. Laboratory work includes demonstration of basic electrical concepts using measuring instruments such as digital multimeters, oscilloscopes, function generators, counters, wattmeters, and bridges.

3 Class Hours, 3 Laboratory Hours; Prerequisites: MAT 150 College Technical Mathematics or equivalent and PHY 161 Physics I or equivalent.

EET 212
Process Design - IS **(4)**

This course is the capstone course in an electrical/mechanical technology degree program. This course is intended to prepare engineering technology students for the future challenges of design. Design is presented as the integration of creativity, knowledge, skills, collaboration and hard work to solve problems. Emphasis will be on achieving design solutions that are high quality, innovative, low cost, and produced quickly. The design process provides a structure in which the various phases of design occur in a logical and efficient sequence in order to arrive at the most successful outcome. This course will present the best of traditional design practices as well as several design tools. Creativity methods will be presented and creativity encouraged in the course. Group design projects with oral presentations are required as part of this course.

4 Class Hours.

EET 230
Electronic Design and Fabrication **(1)**

Selection, package design and construction of an electronic project and preparation of related drawings using computer aided design. Use of various manufacturing processes to fabricate the project. Use of industrial standard drafting practices to properly describe the operations. Chassis layout, printed circuit board design, exposure, and machining, wiring, soldering and enclosure fabrication are required.

3 Laboratory Hours; Prerequisites: EET 112 Electrical Construction Laboratory II and EET 130 Engineering Drawing and EET 150W Electronic Devices & Laboratory.

EET 235
Electrical and Electronics Drawing **(2)**

Graphic representation of circuitry related to the electrical and electronics fields. Use of industrial standards and symbolism to draw electronic schematic and wiring diagrams, printed circuit layout and electronics assemblies. Use of various computer software in the production of drawings.

1 Class Hour, 2 Laboratory Hours; Prerequisites: CIV 113 Engineering Drawing and EET 255 Electronics I.

EET 245
Energy Conversions and Control Systems (4)

DC and AC electrical machines theory, applications, and control. Single-phase and polyphase power transformers and rectifiers. Application of industrial control systems.

3 Class Hours, 2 Laboratory Hours; Prerequisite: EET 126 Circuits II.

EET 247W
Energy Conversions & Laboratory Elective (3, 1)

Theory, operation, and application of DC and AC motors, generators and their control. Theory and application of single and polyphase transformers, power generation systems, and power transmission. Programmable controller applications. Writing Emphasis Course.

3 Class Hours, 3 Laboratory Hours (choose 1 of 3 electives); Prerequisite: EET 150W Electronic Devices & Laboratory.

EET 247-L01
Power Systems Laboratory (1)

The Power Systems Laboratory places a major emphasis on three-phase power systems, alternator regulation, parallel operation of alternators, power factor correction and computer simulations for controlling an electrical power grid. A minor emphasis is placed on motor starters and programmable controllers.

3 Laboratory Hours; Prerequisite: EET 150W Electronic Devices & Laboratory.

EET 247-L02
Programmable Controllers Laboratory (1)

The Programmable Controllers Laboratory places a major emphasis on motor starters and controllers, programmable controller (PLC) hardware and software, interfacing programmable controllers to the motor-generator stations, PLC variable speed control of induction motors and PLC data communications through a local area network. A minor emphasis is placed on power systems.

3 Laboratory Hours; Prerequisite: EET 150W Electronic Devices & Laboratory.

EET 247-L03
Energy Conversions Laboratory (1)

The Energy Conversions Laboratory places an equal emphasis on power systems and programmable controllers.

3 Laboratory Hours; Prerequisite: EET 150W Electronic Devices & Laboratory.

EET 251
Electronic Circuitry and Laboratory (3, 1)

A second course in Electronics including semiconductor physics that incorporates the devices introduced in EET 150W Electronic Devices into representative circuits of moderate complexity. These include multi-stage amplifiers, instrument and transducer amplifiers, op-amp active filters and other related data acquisition circuits. Practical considerations include heat sinking, noise, frequency effects and appropriate device selection. A scientific computer language and the application software are used to design and analyze multi-stage amplifiers and active filter circuits.

3 Class Hours, 3 Laboratory Hours; Prerequisite: EET 150W Electronic Devices and Laboratory.

EET 252
Electronic Systems & Laboratory (3, 1)

A third course in Electronics that uses the circuit concepts used in EET 251 Electronic Circuitry to develop larger systems currently used in the electronics field. These include transducers, interface and data acquisition systems, switchmode power supplies, telecommunications, phase locked loops, satellite and television and communication systems, large signal amplifiers, sinusoidal oscillators and multivibrators. Emphasis is placed on interface between the analog and digital world. The computer is used to aid in design and debug of systems.

3 Class Hours, 3 Laboratory Hours; Prerequisite: EET 251 Electronic Circuitry & Laboratory.

EET 255
Electronics I (4)

A first course in Electronics introducing the devices fundamental to the field. Introduction of semiconductor diodes, bipolar and field effect transistors, SCR's, TRIACS, DIACS op-amps. Design and analyze representative circuits based on these building blocks.

3 Class Hours, 2 Laboratory Hours; Prerequisite: EET 126 Circuits II.

EET 256
Electronics II (4)

A second course in Electronics that incorporates the devices introduced in EET 255 Electronics I into representative circuits of moderate complexity. These include multi-stage amplifiers, op-amp active filters, and other related data acquisition circuits. Practical considerations including heat sinking, noise, electromagnetic interference, and appropriate device selection.

3 Class Hours, 2 Laboratory Hours; Prerequisites: EET 255 Electronics I and CST 106 Computer Applications.

EET 257
Electronics III (4)

A third course in Electronics that uses the circuit concepts used in EET 256 Electronics II to develop larger systems currently used in the electronics field. These include switchmode power supplies, phase locked loops, communication systems, and interfacing systems. The computer is used to aid in design and debug of systems.

3 Class Hours, 2 Laboratory Hours; Prerequisite: EET 256 Electronics II.

EET 267
Digital Electronics and Microprocessors I & Laboratory (3, 1)

Study of number systems, logic gates (TTL/CMOS), counters, shift registers, codes, types of memories, Boolean algebra, reduction theorems, and black box design applied to data transmission, computer arithmetic, and microprocessor operations. Microprocessor (8085, 8086 and 68000) assembly language programming using assemblers, disassemblers, monitors, loaders, logic analyzers and other tools related to industrial applications of microcomputers. Internal operation of a computer from a block diagram approach. Applications include software scrolling, IC testing, traffic controllers, display systems, and math operations. Appropriate laboratory exercises provide hands-on experience in three areas — digital circuitry, microprocessor assembly language, and microprocessor interface hardware.

3 Class Hours, 2 Laboratory Hours; Prerequisite: EET 150W Electronic Devices and Laboratory or EET 255 Electronics I and CST 106 Computer Applications.

EET 268
Digital Electronics and Microprocessors II & Laboratory (4)

Use of modern microprocessors (80x86 and 68000) in real time control applications such as testing complex circuitry using microcomputers, display systems, speech synthesis, EPROM and EEPROM programming, ultrasonic techniques, data manipulation, multiplexing, video games, satellite receivers, encryption techniques, disk controllers, array processors, error detection and correction, synchronous logic circuits, and other modern topics in the microcomputer world. Use of development systems (UNIX based), logic analyzers, and high level languages. Students wire-wrap their own 68000-based single board computer and develop the software monitor program. Assembly language skills learned in EET 267 Digital Electronics and Microprocessors I are tuned and further software development takes place.

3 Class Hours, 2 Laboratory Hours; Prerequisite: EET 267 Digital Electronics and Microprocessors I and Laboratory and instructor approval.

EET 270
Control Systems & Laboratory (3, 1)

Theory, operation, design and implementation of open and closed loop control systems, including mathematical modeling and stability prediction. Theory and applications of both analog and digital control system input/output. Introduction to robotics and process control techniques.

3 Class Hours, 3 Laboratory Hours; Prerequisites: EET 247W Energy Conversions & Laboratory and EET 267 Digital Electronics and Microprocessors I & Laboratory.

EET 271
Communication Techniques (1)

The study of different forms of electronic communications, including microwaves, satellites, telephone systems, fiber optics and digital communication techniques. Examination of microwave devices, satellite receiver systems and signals, telephone circuits, pulse modulation techniques, time and frequency division multiplexing, modems, fiber optic components and local area networks.

3 Laboratory Hours; Prerequisite: EET 251 Electronic Circuitry & Laboratory; Corequisite: EET 252 Electronic Systems & Laboratory.

EET 272
Microcontroller Fundamentals & Laboratory (3, 1)

Theory of open loop and closed loop control systems, including responses, stability and mathematical modeling. Theory and application of the 8051 microcontroller family hardware and software, including programming timers, interrupts, serial communications and multitasking operations. Digital motion control systems and robotic applications.

3 Class Hours, 3 Laboratory Hours; Prerequisites: EET 247W Energy Conversions & Laboratory and EET 267 Digital Electronics and Microprocessors I & Laboratory.

EET 273
Computer Design Lab (1)

Detailed coverage of personal computer hardware with emphasis on memory and I/O interfacing and operation, interrupts and DOS function calls. Theory of operation of floppy and hard disks. Use of the 8088 macroassembler, linker and debugger to develop control software for the personal computer. Hardware and software applications, including memory-mapped video, serial and parallel data communication and 8087 coprocessor utilization. Detailed coverage of MS-DOS, C and Windows.

3 Laboratory Hours; Prerequisite: EET 267 Digital Electronics and Microprocessors I & Laboratory.

EET 274
Robotic Applications & Laboratory (3, 1)

Robotic systems, applications and safety. Industrial robot programming. Robot sensors, actuators and inteligence. Factory automation and computer integrated manufacturing. Theory of open loop and closed loop motion control systems, including responses, stability and mathematical modeling.

3 Class Hours, 3 Laboratory Hours; Prerequisites: EET 247 Energy Conversions & Laboratory and

EET 267 Digital Electronics and Microprocessors I & Laboratory.

NOTE: 'IS' Industry Specific courses carry no lab hours and are offered as part of programs requested by local industries.

EET 275
Machine Vision Lab **(1)**

Detailed coverage of video image digitization, processing and enhancement. Utilization of the frame-grabber for capture, display and analysis of video images. Use of low- and high-pass filtering, histogram equalization and false-coloring for image enhancement. Study of the effect of pixel size and z-axis resolution on image quality. Theory and implementation of machine vision applications, including recognition of small parts, positioning and inspection.

3 Laboratory Hours; Prerequisite: EET 267 Digital Electronics and Microprocessors I & Laboratory.

EET 299
Independent Study **(2-4)**

The student undertakes an independent project in his specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a job-related assignment. Any independent study project is based on instructor availability.

Prerequisite: Department approval.

ENGINEERING SCIENCE

EGR 090
Fundamentals of Engineering **(0)**

A review of the basic tools necessary for successful entry into an engineering science program. Topics in Physics, Mathematics, and Engineering with emphasis on preparation for required courses. Calculator and computer fundamentals. Communication skill development with computers and report writing. Required of all Engineering Science students who lack the prerequisite to take MAT 181 Calculus I with Analytic Geometry and/or PHY 181 Engineering Physics I.

1 Class Hour, 2 Laboratory Hours; Prerequisites: MAT 094 Applications of Algebra with Trigonometry I, PHY 090 Preparatory Physics.

EGR 100
Engineering Orientation: Student Success I **(.5)**

This course is designed to enhance student success by addressing five primary themes: community building, professional development, academic success strategies, personal development, and orientation to the college environment. This is an interactive course with emphasis on group problem solving and experiential learning. Common examinations, field trips, and oral presentations are included as components of this course.

Equivalent Load: 4 Lab Hours

EGR 101
Engineering Orientation: Student Success II **(.5)**

A continuation of EGR 100: This course is designed to enhance student success by addressing five primary themes: community building, professional development, academic success strategies, personal development, and orientation to the college environment. This is an interactive course with emphasis on group problem solving and experiential learning. Common examinations, field trips, and oral presentations are included as components of this course.

Equivalent Load: 4 Lab Hours

EGR 150
Engineering Design I w/Graphics **(2)**

Engineers must be able to communicate their design ideas to others. One of the goals of this first course in Engineering Design is to improve communication skills. These skills include written, oral presentation, computer applications, sketching, and CAD drawing. Software programs used include Microsoft Office as well as Mechanical DeskTop (a parametric design program based upon AutoCad 14).

Students work in teams on a series of short-term projects with the goal of understanding and implementing the engineering design program for problem-solving. Project work is used to focus students on recognizing and developing behaviors associated with harmonious teamwork.

This course is integrated with ENG 110 College Writing I, to emphasize the connection with communication skills.

Equivalent Load: 1 Class Hour, 3 Lab Hours; Corequisite: EGR 100 Orientation and ENG 110.

EGR 151
Engineering Design II **(2)**

(Available in ASL mode)

A continuation of Engineering Design I. Techniques for development of a needs assessment are developed using engineering case studies and histories. Design proposals are used to justify design work. Manufacturing tools are introduced and proper use techniques are shown in a "hands-on" environment. Ethical issues and product liability laws are used to illustrate the need to perform careful analysis in engineering design. A programming language is used with spreadsheet applications to solve engineering problems. This is a project-oriented course with students working on teams to solve open-ended problems.

Equivalent Load: 1 Class Hour, 3 Lab Hours; Prerequisite: EGR 150 Engineering Design I; Corequisite: EGR 101 Orientation.

EGR 200
Engineering Orientation: Student Success III **(.5)**

A continuation of EGR 101: This course is designed to enhance student success by addressing five primary themes: community building, professional development, academic success strategies, personal development, and orientation to the college environment. This is an interactive course with emphasis on group problem solving and experiential learning. Common examinations, field trips to industry, visits by four year engineering recruiters, and oral presentations are included as components of this course.

Equivalent Load: 4 Lab Hours

EGR 201
Engineering Orientation: Student Success IV **(.5)**

A continuation of EGR 200: This course is designed to enhance student success by addressing five primary themes: community building, professional development, academic success strategies, personal development, and orientation to the college environment. This is an interactive course with emphasis on group problem solving and experiential learning. Common examinations, field trips, visits to four year engineering schools, and oral presentations are included as components of this course.

Equivalent Load: 4 Lab Hours

EGR 281
Mechanics (Statics) **(3)**

(Available in ASL mode)

Fundamental concepts of the statics of rigid bodies developed by using a vector analysis approach. Force systems, centroids and centers of gravity, analysis of structures, shear and bending moments, friction and moments of inertia.

Equivalent Load: 3 Class Hours; Prerequisite: MAT 181 Calculus and PHY 181 Physics I.

EGR 282
Mechanics (Dynamics) **(3)**

(Available in ASL mode)

Vector analysis approach to kinematics and kinetics of particles, systems of particles, kinematics and kinetics of rigid bodies, forces, mass, acceleration, impulse, momentum, work and energy techniques.

Equivalent Load: 3 Class Hours; Prerequisite: EGR 281 Mechanics (Statics).

EGR 283
Strength of Materials **(3)**

(Available in ASL mode)

Elementary analysis of the strength and deformation of deformable bodies. Topics include stress-strain, torsion, bending, Mohr's circle, flexure, energy methods, and columns.

Equivalent Load: 3 Class Hours; Prerequisite: EGR 281 Mechanics (Statics).

EGR 284
Materials Science **(3)**

(Available in ASL mode)

Atomic model, bonding, lattice concept, crystal types, imperfections, stress and temperature effects, phase diagrams, alloys, ceramics, polymers, composites, corrosion, electrical and magnetic properties materials

Equivalent Load: 3 Class Hours; Prerequisite: PHY 182 Engineering Physics II and CHM 145 Chemistry.

EGR 285
Electrical and Electronic Circuits **(3)**

(Available in ASL mode)

Units and definitions; charge, current, voltage, power, energy. Ohm's Law, active and passive elements, independent and dependent sources. Resistance, Kirchhoff's Laws, network reduction. Nodal and mesh analysis techniques, source transformation, superposition. Thevenin's and Norton's theorems, maximum power transfer. Capacitance and inductance; natural, forced, and complete response of switched R-L, R-C, and R-L-C circuits. A.C. sinusoidal steady state analysis. Ideal and practical operational amplifier circuits. Frequency response of parallel and series R-L-C circuits and filter networks. Computer aided circuit analysis using PSPICE.

Equivalent Load: 3 Class Hours; Prerequisite: MAT 182 Calculus II and EGR 289 Introduction to Microprocessors.

EGR 287
Engineering Design III **(1)**

(Available in ASL mode)

This course is the third course in a four course design sequence. This course is intended to prepare engineering students for the future challenges of design. Design is presented as the integration of creativity, knowledge, skills, collaboration and hard work to solve problems. Emphasis will be on achieving design solutions that are high quality, innovative, low cost, and produced quickly. The design process provides a structure in which the various phases of design occur in a logical and efficient sequence in order to arrive at the most successful outcome. This course will present the best of traditional design practices as well as several design tools. Creativity methods will be presented and creativity encouraged in the course. Group design projects with oral presentations are required as part of this course.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

§ These courses are offered in connection with Lourdes Hospital and other off-campus sites. Additional information may be obtained from Lourdes Office of Souther Tier Paramedic at (607) 729-3271, or by calling (607) 778-5161.

◆ ASL mode courses are available through the internet.

Equivalent Load: 3 Lab Hours; Prerequisite: EGR 151; Corequisite: EGR 289.

EGR 288

Engineering Design IV **(1)**

(Available in ASL mode)

This fourth course in design is intended to prepare engineering students for the future challenges of design. Design is presented as the integration of creativity, knowledge, skills, collaboration and hard work to solve problems. Emphasis will be on achieving design solutions that are high quality, innovative, low cost, and produced quickly. The design process provides a structure in which the various phases of design occur in a logical and efficient sequence in order to arrive at the most successful outcome.

This course will present the best of traditional design practices as well as several design tools. Creativity methods will be presented and creativity encouraged in the course. Group design projects with oral presentations are required as part of this course. Students are encouraged to enter their completed design projects in regional and national competitions.

Equivalent Load: 3 Lab Hours; Prerequisite: EGR 287.

EGR 289

Introduction to Microprocessors **(3)**

(Available in ASL mode)

An introduction to microprocessors with digital logic, machine and assembly language programming, serial and parallel input/output, A/D, and hardware interfacing with switches, lights, etc. Projects and simulation laboratory experiences using EWB are included as part of this course.

Equivalent Load: 2 Class Hours, 3 Lab Hours; Prerequisite: PHY 182; Corequisite: EGR 200 Orientation.

EGR 298

Cooperative Work Experience **(1-4)**

Student/s undertake/s an independent supervised work experience in industry under the guidance of a faculty member. Only one cooperative work experience course allowed per semester.

Equivalent Load: 1 Class Hour; Prerequisite: Department approval.

EGR 299

Independent Project **(2-4)**

The student/s undertake/s an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Special consideration will be given to design projects.

Equivalent Load: 1 Class Hour; Prerequisite: Department approval.

EMERGENCY MEDICAL TECHNICIAN

§EMT 110

Basic Emergency Medical Technician **(8)**

Prepares student for basic level life support. How to assess medical emergencies and function with no special equipment. Lecture and lab format allows student hands on practice with triage, vital signs, bandaging and splinting, rescue breathing and CPR. CPR Certification is part of this class. May be taken by any student.

110 Lecture Hours; 10 Lab Hours; Prerequisite for PMD 201 Paramedic.

§EMT 120

Intermediate Emergency Medical Technician **(6)**

Focus on trauma skills with intravenous theraphy and advanced airway management.

Prerequisite: EMT 101 Basic Emergency Medical Technician Lecture/Laboratory.

§EMT 130

Critical Care **(12)**

Knowledge of the acute and critical changes in physiology, pathophysiology, and clinical signs and symptoms of acute disease and trauma states as they pertain to pre-hospital emergency care.

Prerequisite: Current New York State EMT Certificate (Basic) Lecture/laboratory.

ENGLISH

ENG 090

Basic Language Skills **(0)**

A writing-workshop course designed to prepare inexperienced writers for the critical thinking and academic writing that are the foundations of English 110. Students learn to write essays that are focused, full, and coherent. Students also learn to edit their writing according to the conventions of standard written English.

4 Class Hours - 4 Credit-Equivalents; Prerequisite: Placement Test.

ENG 106

English as a Second Language, Intermediate II **(3)**

Advanced study of the English language for international students. Emphasis on the development of basic English compositional skills. Continued practice in listening, reading, and speaking.

3 Class Hours; Prerequisite: ESL 113, 114, 115 or Placement Test.

ENG 107

English as a Second Language, Advanced I **(3)**

This course integrates academic reading and writing and critical thinking for non-native speakers of English. Students practice different writing processes and rhetorical strategies in order to write essays that are purposeful, thoughtful, and coherent, and that conform to the conventions of standard written English. They practice vocabulary-building techniques and review grammatical structures needed for effective communication. They understand writing as a social and collaborative process.

3 Class Hours (Equivalent to ENG 110 for international students); Prerequisite: ENG 106 or Placement Test.

ENG 108

English as a Second Language, Advanced II **(3)**

This course, designed for non-native speakers of English at an advanced level of proficiency in written English, focuses on sophisticated analyses and evaluations of texts and on the writing of essays that expand and refine thinking about issues and ideas from across the disciplines. Students analyze and evaluate ideas and information from a variety of sources, including electronic databases and networks. They acquire the skills to choose the appropriate rhetorical stance for different ideas, purposes, and audiences and produce thesis-centered essays as a result of synthesizing multiple positions on global issues.

3 Class Hours (Equivalent to ENG 111 for international students); Prerequisite: ENG 107 or Placement Test.

ENG 110

College Writing I **(3)**

Students learn to use writing to develop their thinking and to read texts critically for both form and content. They practice different writing processes and rhetorical strategies in order to write essays that are purposeful, thoughtful, and coherent, and that conform to the conventions of standard written English. They understand writing as a social and collaborative process, both as a mode of individual expression and as a rhetorical act.

3 Class Hours; Prerequisite: Placement Test.

ENG 111

College Writing II **(3)**

Students produce sophisticated analyses and evaluations of texts and write essays that expand and refine their thinking about important ideas and issues. They analyze and evaluate ideas and information from a variety of sources, including electronic databases and networks, providing documentation according to MLA style. Students extend their writing maturity by learning to choose an appropriate rhetorical stance for different ideas, purposes, and audiences, and to assert an original thesis as a product of synthesizing ideas from multiple perspectives.

3 Class Hours; Prerequisite: ENG 110 College Writing I or Placement Test.

ENG 150

Technical Writing **(3)**

This introductory course in technical communication offers a practical approach for writing and speaking effectively in professional, technical environments. The course emphasizes analytical methods for understanding and fulfilling the communicational needs of one's audience and gives students opportunity to practice and apply these communication techniques. (This course is for students in Engineering Technology programs.)

3 Class Hours; Prerequisite: ENG 110 College Writing I.

ENG 163

Reporting **(3)**

An introduction to news reporting for print journalism. Students will consider what makes the news and sources of news. Concentrating on newswriting as it is practiced by newspapers, they will analyze news stories, try out interview strategies, and write stories in which they follow newspaper conventions of structure and style. Students will participate in writing for the school newspaper.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

ENG 168

News Editing **(3)**

An introduction to news editing and layout and design for print journalism. Students will explore editing, headline writing, caption writing, and page layout and design. Students will participate in editing the school newspaper.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

§ These courses are offered in connection with Lourdes Hospital and other off-campus sites. Additional information may be obtained from Lourdes Office of Souther Tier Paramedic at (607) 729-3271, or by calling (607) 778-5161.

◆ ASL mode courses are available through the internet.

ENG 170
Creative Writing (3)

Designed to provide students interested in imaginative writing with the opportunity to investigate concepts and to practice techniques implicit in prose, poetry, and drama. Class discussion, workshops, and personal conferences with the instructor.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

ENG 175
Creative Writing – Publication (4)

Designed to provide students interested in imaginative writing with the opportunity to investigate concepts and to practice techniques implicit in prose,poetry, and drama. Class discussion, workshops, and personal conferences with the instructor. Writing, evaluating, and arranging material for a campus literary journal.

4 Class Hours; Prerequisite: ENG 110 College Writing I.

ENG 210
Advanced Writing (3)

An intensive writing course that emphasizes critical and imaginative thinking as well as collaboration among writers. The course provides a supportive environment in which students work rigorously to continue their development as writers at the same time that they acquire strategies to support the growth of their fellow writers. The course includes a tutoring component that requires a 10-hour commitment to tutoring in the Writing Center. Students begin their tutoring at mid-semester. To benefit from the course, the student need not be an accomplished writer but should enjoy writing and have an interest in helping other writers.

3 Class Hours; Prerequisite: Eng 110 College Writing I.

ENG 212
Writing on the Net (3)

This course will investigate how writing changes for both the writer and the reader when presented on a network of computers with multimedia. Students will explore writing on several networks, including LAN, Internet, and the Worldwide Web, and study how the roles of reader and writer change in networked text. They will discover and analyze the growing number of e-zines that have arisen on the Web, will work with the powerful research tools available on the Net, and finally will develop their own home page model. No computer expertise will be needed.

3 Class Hours; Prerequisite: Eng 110 College Writing I.

ENG 220
Communicating About Ideas and Values (3)

Critical analysis of issues and moral problems affecting all thinking adults. Selected readings organized around broad themes. Required writing assignments and oral communication. Required of most degree students.

3 Class Hours; Prerequisite: ENG 110 College Writing I and completion of at least one but preferably two Writing Emphasis ("W") courses.

ENG 299
Independent Study: English (3)

An individual student project concerned with advanced work in a specific area of language or literature. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: One semester of college level work including ENG 110 College Writing I.

ENGLISH

ESL 003
English as a Second Language, Elementary Grammar (4)

Introduction of basic English grammar, both oral and written, for non-native speakers. Curriculum will include study of basic verb tenses, noun categories, and basic affirmative, negative, and interrogative sentence patterns. The material will reinforce what is taught in ESL 004 and 005. Taken together these courses are referred to as the ESL 003 Series. (This course is not acceptable for credits toward a degree.)

4 Class Hours, 2 Laboratory Hours; Prerequisite: Diagnostic Test.

ESL 004
English as a Second Language, Elementary Oral/Aural Skills (4)

A course for students who speak little or no English. The sounds of English are presented systematically and language laboratory practice is required. Ear training is begun and strengthened through work in the listening laboratory. Students are taught communicative skills from the outset, and the emphasis is on speaking and being understood. (This course is not acceptable for credits toward a degree.)

4 Class Hours, 2 Laboratory Hours; Prerequisite: Diagnostic Test.

ESL 005
English as a Second Language, Elementary Reading Skills (4)

For non-natives who had little exposure to written English. Basic sentence structure and vocabulary will be studied in order to improve student's comprehension, from simplified reading texts to those of increasing complexity. Writing skills, simple sentence structures, and organization skills are also stressed. (This course is not acceptable for credits toward a degree.)

4 Class Hours, 2 Laboratory Hours; Prerequisite: Diagnostic Test.

ESL 102
English as a Second Language, Basic Writing Skills (5)

Introduction to the basic rhetorical/sentence patterns of English and their usage, organizational and developmental writing skills. Focus on the expression of ideas/concepts and their presentation in simple and complex sentence form, proofreading and editing skills, note taking, outlining and computer assisted instruction. (This course is not acceptable for credits toward a degree.)

4 Class Hours, 3 Laboratory Hours; Prerequisite: Diagnostic Test.

ESL 103
English as a Second Language, Grammar Review (5)

Intensive review of pre-intermediate levels of the English language for international students. Emphasis on listening, reading, speaking and some aspects of writing. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

4 Class Hours, 2 Laboratory Hours

ESL 104
English as a Second Language, Basic Speech (4)

To provide international students with practice, articulation and vocabulary needed to increase self-confidence in English conversation, discussion in the classroom and other daily situations. Audio-lingual laboratory. (This course is not acceptable toward a degree.)

3 Class Hours, 2 Laboratory Hours

ESL 105
English as a Second Language, Basic Reading (4)

Review of English sound-symbol correspondence, utilization of brief recombinations of variations of narratives and dialogues, and acquisition of simple reading techniques through exposure to uncomplicated reading selections. Vocabulary and reading comprehensive development, audio-lingual practice — active, passive, comparative. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

3 Class Hours, 2 Laboratory Hours

ESL 113
English as a Second Language, Intermediate Composition (4)

Study of the English language for international students with listening, reading, speaking, writing skills on the intermediate level. Language workshops emphasizing grammar, syntax, vocabulary and composition. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

3 Class Hours, 2 Laboratory Hours; Prerequisite: ESL 103 English as a Second Language, Grammar Review or equivalent.

ESL 114
English as a Second Language, Intermediate Speech (4)

Designed for international students emphasizing free and controlled conversation and discussion. Continues practice in articulation, phrasing and vocabulary building. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

3 Class Hours, 2 Laboratory Hours; Prerequisites: ESL 104 English as a Second Language, Basic Speech or equivalent.

ESL 115
English as a Second Language, Intermediate Reading (4)

Study of lexical, grammatical, and social-cultural meaning through intensive and extensive reading. Establishment of reading fluency and comprehension. Direct and audio-lingual practice with selected text and independence in English. Continues development of vocabulary and reading comprehension. Direct and audio-lingual practice with selected texts and exercises. Audio-lingual laboratory. (This course is not acceptable for credits toward a degree.)

3 Class Hours, 2 Laboratory Hours; Prerequisite: ESL 105 English as a Second Language, Basic Speech or equivalent.

FRENCH

FRE 101, 102
Beginning French (4, 4)

Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Reading and discussion of cultural texts.

4 Class Hours; Prerequisite: FRE 101 Beginning French for FRE 102.

FRE 201, 202
Intermediate French I and French II (3)

Intensive review of grammar and syntax and oral practice in classroom. Reading and discussion of works selected by the instructor.

3 Class Hours; Prerequisite: FRE 102 Beginning French for FRE 201.

FIRE PROTECTION

*FRS 101
Fire Prevention and Protection (3)

Methods, policies and procedures relative to establishing and operating appropriate fire prevention and protection programs.

3 Class Hours

*FRS 103
Fire Fighting Tactics and Strategy (3)

Focus on pre-planning and the development of fire fighting tactics appropriate for a wide variety of hazards. Review of basic information and some local conditions. The case study method is used to develop plans and tactics relating to the student's own department.

3 Class Hours

*FRS 105
Arson Investigation (3)

Fire investigations and arson. Responsibilities of the arson investigator, tools of the investigator, photography, electronic devices, laws pertaining to arson, motives and tools of the arsonist, courtroom procedures. A field experience will be included.

3 Class Hours

*FRS 107
Legal Aspects of the Fire Service (3)

Laws and regulations as they pertain to the fire service and its personnel. Legal terminology necessary for the interpretation of pertinent laws and decisions. Legal status of the fire fighter, as well as fire fighter's rights, duties and liabilities. Responsibilities and powers of the service in enforcement of ordinances and codes.

3 Class Hours; Writing Emphasis Course.

*FRS 108
Building Construction for Fire Science (3)

Fire fighters are confronted with many unknown factors at the fire ground. Among these is the unknown structural stability of the buildings they must enter. Basic principles of building construction and design with emphasis focused on fire protection concerns. Building materials included.

3 Class Hours

*FRS 110
Computers in the Fire Service (3)

Introductory concepts of micro-computer use in Fire Science settings. Software packages, hardware and software purchasing relating to Fire Service usage, word processing, data base management and spreadsheet application to student generated problems.

3 Class Hours

*FRS 200
Hazardous Materials (3)

Chemicals and chemical processes most closely involved in fire protection and fire fighting. Use, storage, transportation and disposal of hazardous materials with emphasis on flammable liquids, flammable solids, oxidizing materials, corrosive liquids, compressed gases. A writing emphasis "W" course.

3 Class Hours

*FRS 201
Fire Service Hydraulics (3)

Application of the laws of mathematics and physics to properties of fluid states, force pressure and flow velocities. Emphasis on applying principles of hydraulics to fire fighting problems.

3 Class Hours; Prerequisite: MAT 092 or equivalent.

FRS 204
Protection and Suppression Systems (3)

Design, installation, operation, and trouble shooting of various systems. Extinguishers, alarms, sprinkler systems, chemical approaches, and Halon systems. Projects and field trip included.

3 Class Hours

*FRS 205
Fire Department Administration (3)

Organization of the fire departments with emphasis on personnel management, distribution of equipment, maintenance of records, communications, data collection and community relations. ISO Grading Schedule.

3 Class Hours

*FRS 250
Special Topics (1-3)

Exploration of special topics in Fire Protection Technology. May be repeated since topics will vary from semester to semester. Special topics have included The Psychology of the Firesetter and Code Enforcement.

*FRS 299
Independent Study: Fire Service (1-3)

An individual student project in an area of fire protection or service beyond the scope of regular coursework. Conducted under supervision of coordinator and approved by department chairperson and Dean.

Prerequisite: 6 Credits in FRS coursework and 6 Credits in General Education courses.

GEOGRAPHY

GEO 120
World Cultural Geography (3)

Description and analysis of human or cultural use of physical space, economics, religious, linguistic, and political phenomena in major world areas. A regional approach is used to highlight the phenomena.

3 Class Hours

GERMAN

GER 101, 102
Beginning German (4, 4)

Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Written homework assignments supplemented by work in audio-lingual laboratory. Reading and discussion of graded literary and cultural texts.

4 Class Hours; Prerequisite: GER 101 Beginning German for GER 102.

GER 201
German Conversation and Composition (3)

Emphasis on the four language skills – reading, writing, speaking, listening – especially on speaking and writing. Intensive discussion of style, grammar and the contemporary idiom to enhance the student's ability to express himself in German.

3 Class Hours; Prerequisite: GER 102 Beginning German.

HEALTH CARE MANAGEMENT

HCM 193
Introduction to U.S. Healthcare Systems (3)

A survey of the American Health Care System that examines the elements related to the organization, delivery, financing and planning of health services.

3 Class Hours

HCM 194
Healthcare Financing (3)

This course will present the United States' health care system from a cost perspective. Students examine the history of health care costs in the U.S., the nature of competition, the characteristics of the market for medical services that influence competition, and the implications of these factors on the health care sector of our economy. Special emphasis will be placed on the most current legislation and administrative proposals/ enactments.

3 Class Hours; Prerequisite: HCM 193 or permission of instructor.

HCM 195
Managed Health Delivery Systems (3)

Managed Health Delivery Systems is designed to engage students in a learning process about the intricacies of managed care. It will provide a core of basic information about managed care in the United States — history, promises and shortcomings. In addition, this course will focus on managerial parameters of managed care. Strategies for marketing services, physician recruitment and price quality competition will be presented in the context of the new market place realities. Finally, consumer health behavior and utilization dynamics will be discussed and evaluated from the standpoint of their practical rather than theoretical significance.

3 Class Hours; Prerequisite: HCM 193 or permission of instructor.

HCM 196
Healthcare Ethics (3)

Health care ethics is designed for health care professionals and students planning to enter the health care field. It offers participants the chance to understand health care ethics. Some topics covered in the course will include: autonomy in long-term care settings and withdrawing fluids and nutrition, euthanasia, and physician assisted suicide (medicide); HIV, reproductive rights, allocating health care resources, institutional missions, and obligations, competition and entrepreneurship in health care, and rationing.

3 Class Hours

HCM 197
Economics of Health & Medical Care (3)

Economics of Health and Medical Care is designed for students that seek an understanding of the tools, vocabulary, and way of thinking about economics as it is applied to decision making in the delivery of health services, administration, and policy. The basic methods of micro-economics will be emphasized as tools to help individuals, organizations, and policy makers, make better decisions about health care in the United States.

3 Class Hours; Prerequisite HCM 193 and HCM 194.

HCM 198
Long-Term Care (3)

Long-term care will be studied in its current and dynamic environment. Students will learn how long-term care has evolved in the United States. Specific emphasis will be placed on levels of care, payment systems, social and economic concerns, current legislative initiatives, and the future needs of our expanding long-term care population.

3 Class Hours

HISTORY

HIS 115
Modern Global History: The World in Transition (3)

HIS 115 Modern Global History is a core course required of all Liberal Arts students. The evolution of the modern world from 1500 to the present. Background to the modern world: traditional societies and cultures. Origins of modernity: the Columbian Exchange; the development of a global economy; the scientific, technological, and industrial revolutions and their consequences; development of the modern nation state system. Western expansion and the response of the peoples of Latin America, Africa, Asia, the Middle East. Issues and problems of the contemporary world. Individual instructors may choose to emphasize developments in selected geographical areas.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

3 Class Hours

HIS 130
United States History I (3)

The United States from 1607 to 1877. The colonies, Revolution, Constitution, early national period, Jacksonian era, expansion, Civil War and Reconstruction, and Westward Movement. Survey of political, economic, social and cultural developments through most of the 19th century. Satisfies the civic education requirement.

3 Class Hours

HIS 131
United States History II (3)

The United States from 1877 to the present. The closing of the frontier, the American Empire, progressive reforms, World War I, the Twenties, Depression, New Deal, World War II, the Cold War, Civil Rights, Vietnam, and the present. Emphasis on Political, Cultural, Social and Economic & Developments. Satisfies the civic education requirement.

3 Class Hours

HIS 141
History of Modern Latin America and the Caribbean (3)

History of Latin America and the Caribbean from independence to the present, emphasizing distinctive cultures, power relations between indigenous peoples and elites, the causes of political instability and economic backwardness. Close analyses of reform, reactionary, and revolutionary movements in the hemisphere and inter-American affairs.

3 Class Hours

HIS 180
Utopia: Visions of the Good Society (3)

Examines the functions of the Utopian Impulse throughout modern history as a series of "thought experiments" which address the question "what constitutes the Good Society?" Comparative analysis of various representative utopian authors such as Thomas More, Edward Bellamy, C.P. Gilman, W. Warren Wager etc. Consideration will also be given to utopian experimental communities such as the Oneida Pefectionist experiment, the Shakers, the Owenites, etc.

3 Class Hours

HIS 183
Women's History (3)

The "other" history: that of women from prehistory to the modern era. Review of philosophical, religious, social, and political attitudes about and practices toward women. Women's lives, achievements, and roles in Western and other civilizations. Emphasis is on the United States.

3 Class Hours

HIS 185
Hitler and the Nazi Dictatorship (3)

Origins of National Socialism, role of Adolf Hitler, road to Nazi Dictatorship, Nazi political and social revolutions. Hitler's foreign policy and Europe's reaction, World War II and Hitler's "New Order," Nazi system of persecution and genocide, collapse of the 1,000-year Reich, legacy of the Hitler period.

3 Class Hours

HIS 187
The United States Civil War: Causes and Effects (3)

A study of American institutions within the timeframe of 1815-1877; examination and analysis of Antebellum politics, society, and culture; origin and nature of the American Civil War and the social, economic and political changes brought about by the War and Reconstruction.

3 Class Hours

HIS 188
Vietnam and America (3)

A course on the Vietnam War and American society. Background: modern Vietnam, war and American culture, the Cold War. The War: military and political aspects, the soldier's experience. The homefront: social developments, the media, the anti-war movement. The legacy of the war.

HIS 190
The World Since 1945 (3)

An overview of the changing patterns in global history since the end of WW 2. Typical topics will include the rise and fall of the Cold War; decolonization; forces promoting globalization such as a scientific technology, an interdependent global economy and emerging threats to the global environment; forces opposed to globalization such as ethnic, national, and religious rivalries.

3 Class Hours

HIS 194
Readings in African-American History (3)

A survey of African-American thought, including the ideas of Booker T. Washington, W.E. DuBois, Marcus Garvey, Martin Luther King, Jr., and Malcolm X. In addition, attention will be given to 19th century West Africa and the problems affecting African-American society.

3 Class Hours

HIS 210
The Shock of the New: 20th Century Culture

A course in the history of Western culture since about 1880. Nineteenth century background. Major movements in the visual arts (Impressionism, Surrealism, etc.), music (atonality, serialism, etc.), and literature (Theatre of the Absurd, magic realism, etc.). General trends in thought (Freud, existentialism, etc.). Popular culture. Postmodernism and other recent developments.

HIS 210-280
Special Topics in History (1-3)

Additional history courses are available besides those listed here in the College Catalog. For further information consult the college master schedule or department chair.

HIS 299
Independent Study (1-3)

An independent study project which is beyond the scope of courses currently offered by the department, directed by a faculty member with approval of the department chairperson. Independent study does not satisfy the Liberal Arts requirement in history, and it may not be taken in lieu of a 100-series course.

Prerequisite: 3 hours of College History.

HEALTH INFORMATION

HIT 101
Introduction To Health Information Systems (4)

Introduction to the organization of healthcare delivery and overview of the profession. Definition of, standards for, and development of a medical record as to content, format, evaluation and completion. Numbering and filing systems and methods; registries and indexes, forms and screen design.

3 Class Hours; Corequisite: HIT101L Introduction to Health Information Systems Laboratory.

HIT 101L
Introduction To Health Information Systems Laboratory (0)

Practical application in the medical record laboratory of the principles described in the lecture mode of this course.

2 Laboratory Hours; Corequisite: HIT 101 Introduction to Health Information Systems.

HIT 106
Medical Terminology (3)

A study of the language of medicine, including suffixes, prefixes and root words. Emphasis on terminology associated with the anatomic systems.

HIT 107/MDA 106
Medical Transcription and Correspondence (4)

Introduction to equipment/software used for computerized transcription services. Fundamentals of medical transcription to include correspondence and various medical reports such as History and Physical examinations, operative reports, consultation reports, discharge summaries, radiology reports and pathology reports.

4 Class Hours; Prerequisite: HIT 106 Medical Terminology and MDA 104 Keyboarding and Medical Word Processing or permission of instructor.

HIT 116
Health Statistics (3)

A study of methods for compiling statistics for hospital administration, medical staff, and licensing and accrediting agencies. Vital statistics, public health statistics, and hospital statistics are covered. An introduction to research techniques with graphic presentation of medical data is also covered.

2 Class Hours; Prerequisite: HIT 101 Introduction to Health Information Systems; Corequisite: HIT 116L Health Statistics Laboratory.

HIT 116L
Health Statistics Laboratory (0)

Applications of the principles learned in the lecture mode of this course.

2 Laboratory Hours; Corequisite: HIT 116 Health Statistics.

HIT 144
Clinical Affiliation I (2)

Supervised professional practice assignments structured so that students gain experience in applying knowledge to technical procedures in health information systems.

90 Clinical Hours over 15 Weeks; Prerequisites: HIT 101 Introduction to Health Information Systems, 116, 222.

HIT 203
Computers In Health Care (3)

Identification of computer applications in the health care industry; types of hardware and software systems; integrated and non-integrated computerized health information systems; organization of an information resource management program; components of a health care facility database, principles of database coding design, data dictionaries; computerized (paperless) patient health records; overview of systems analysis approach in the selection and development of an information system; data quality; methods to control computer security and confidentiality; strategies for report management; issues related to electronic vs optical disk systems; local and wide area networking.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

3 Class Hours; Prerequisites: CST 105 Understanding Computers; HIT 101 Introduction to Health Information Systems.

HIT 204

Inpatient Coding System (4)

Principles and application of the ICD-9CM Classification System. Introduction to the prospective payment system to include DRG assignment, case mix analysis, severity of illness system and data quality.

3 Class Hours; Prerequisite: BIO 132 Human Biology II; Corequisite: HIT 204L Inpatient Coding System Laboratory.

HIT 204L

Inpatient Coding System Laboratory (0)

Actual practice of coding medical records and assignment of DRGs utilizing both a manual method and an encoder software sytem.

3 Laboratory Hours; Corequisite: HIT 204 Inpatient Coding System.

HIT 208

Advanced Medical Transcription (4)

Transcription of authentic physician-dictated reports organized by body systems or medical specialties. Emphasis on advanced skills, developing accuracy, speed and additional detailed study of medical terminology. Emphasis on the basic medical reports as well as specialized reports relating to the various body systems. Emphasis also on using references and other resources efficiently, editing and proofreading techniques.

4 Class Hours; Prerequisite: HIT 107 Medical Transcription or MDA 106 Medical Correspondence & Communication.

HIT 210

Management Principles for Health Information (3)

Principles of management, planning, organizing, controlling, and directing as they relate to and are integrated with specific applications to health information management functions. Principles of personnel supervision are also included.

2 Class Hours; Prerequisite: HIT 236 Quality Improvement; Corequisite: HIT 210L Management Principles for Health Information Laboratory.

HIT 210L

Management Principles for Health Information Laboratory (0)

Practical applications of the principles discussed in the lecture mode.

2 Laboratory Hours; Prerequisites: HIT 144 Clinical Affiliation I; Corequisite: HIT 210 Management Principles for Health Information.

HIT 214

Ambulatory Care Coding (2)

An indepth study of nomenclature/classification systems such as CPT-4, DSM-III, ICD-0, SNOMED, SNOP. Overview and application of policies and procedures for ambulatory care coding and data collection.

1 Class Hour; Corequisite: HIT 214L Ambulatory Care Coding Laboratory.

HIT 214L

Ambulatory Care Coding Laboratory (2)

Practical applications of the principles discussed in the lecture mode.

2 Class Hours; Corequisite: HIT 214 Ambulatory Care Coding Laboratory.

HIT 220

Survey of Healthcare Delivery (2)

The study of the regulatory issues, content, use and structure of health care data and data sets as they relate to long term care facilities, home health agencies, hospices, mental health facilities, ambulatory care, physicians offices and others. The financing of health care services will be discussed as it relates to the various payment and reimbursement systems.

2 Class Hours; Prerequisites: HIT 101 Introduction to Health Information Systems.

HIT 222

Medical Legal Aspects (3)

Introduction to legal aspects of medical records. Legal basis for medical practice, confidentiality. Patient's "Bill of Rights," voluntary and involuntary release of medical information. Authorizations and consents, professional liabilities, medical-moral issues such as abortion, euthanasia, sterilization, artificial insemination.

3 Class Hours; Prerequisite: HIT 101 Health Information Systems.

HIT 236

Quality Improvement (3)

A study of the components of a hospital wide quality assurance program — quality assessment, utilization management, credentialing, and risk management.

1 Class Hour, 2 Laboratory Hours; Prerequisite: HIT 222 Medical Legal Aspects, HIT 116 Health Statistics and HIT 116L Health Statistics Laboratory.

HIT 236L

Quality Improvement Laboratory (0)

Practical applications of the principles discussed in the lecture mode.

2 Laboratory Hours; Prerequisites: HIT 144 Clinical Affiliation I; Corequisite: HIT 236 Quality Improvement Laboratory.

HIT 245

Clinical Practice II (6)

Professional practice experience in facilities, organizations and agencies related to healthcare. Students will gain experience in technical procedures and in developing professional attitudes for interacting with other professionals and consumers in the healthcare field.

6 Weeks: 40 Hours per week; Prerequisites: HIT 210 Management Principles for Health Information; HIT 295 Health Information Seminar.

HIT 250

Medical Insurance Billing (2)

An indepth study of the uses of coded data and health information in reimbursement and payment systems appropriate to all health care settings and managed care.

2 Class Hours, 1 Laboratory Hour; Prerequisites: HIT 204 Inpatient Coding System and HIT 214 Alternate Classification Systems or permission of instructor.

HIT 260

Advanced Coding (2)

To develop an understanding of the disease processes as to how they relate to the valid assignment of diagnostic and procedural coding. This will encompass both inpatient and ambulatory coding. Coding and DRG assignments will be enhanced by using an ENCODER.

2 Class Hours, 1 Laboratory Hour; Prerequisites: HIT 204 Inpatient Coding System and HIT 214 Alternate Classification Systems or permission of instructor.

HIT 295

Health Information Seminar (2)

Principles of health information consulting and business requirements for self-employment. Resume preparation and interviewing techniques demonstrated. Guest speakers will give presentations on current topics in the field and profession.

2 Class Hours; Prerequisite: Senior year status.

HUMAN SERVICES

HMS 146

Introduction to Gerontology

Provides an interdisciplinary look at the aging process and social environment of older adults. Theories of aging, as well as physiological and psychological changes will be explored. Emphasis will be on the particular needs of the older adult and the resources, services, and policies to address them.

3 Credit Hours

HMS 147

Eldercare Seminar and Internship (3)

Through integrated seminars and hands-on work experiences in eldercare settings, policies and practices in eldercare will be explored. Physical, psychological, social, recreational, and environmental needs of older people and how well these needs are accommodated in various care environments will be the focus of class seminars. A service component of four hours per week will allow students the opportunity to mesh theory and practice.

3 Class Hours

HMS 240

Perspectives on Death and Dying

Examines individual and cultural beliefs and responses to death, dying and dying people, and the social/psychological patterns that surround them. Hospice care, advanced medical treatment, funeral customs, suicide, and euthanasia are examples of topics explored. An understanding of grief and the grief process is emphasized. Ethical/moral and legal responses to controversial issues are discussed.

3 Class Hours

HMS 250

Human Service Organizations

A basic course in the social psychology of groups and organizations. Students will learn about the basic concepts and propositions that provide insight into the organizational dynamics that confront members of all types of human service organizations, such as perception of roles, norms, communication, power, leadership, and other issues. In addition, students will gain a heightened understanding of human service organizational culture issues that are specific to human and health care services in context of their changing economic, political, and ecological environments. The new organizational forms, strategies, and innovations made by human and health care services to these changes (at various organizational levels) will be emphasized.

3 Class Hours

HMS 260

Special Topics on Aging (3)

This course is designed to focus on special, current, and/or topical issues related to te field of gerontology and working with the elderly. Topics include leisure and recreational programming for older adults, long term/nursing home care, community based living arrangements, physical therapy for the elderly, health promotion in the elderly, communication/hearing disorders, aging policies and programs, etc. The purpose of the course is to allow for topics introduced in other gerontology courses to be studied in-depth and to facilitate a state-of-the-art awareness of current issues/needs of the older person. Some topics will change from semester to semester.

HMS 290
Human Service Field Experience (4)

A field placement in a health, human service or school setting, under the supervision of faculty supervisor and agency personnel. Objectives for each student's placement are developed in conjunction with the respective agencies, instructor, and student through a learning contract. Students will also participate in a weekly seminar on campus to develop helping-and relationship-building skills with instructor and other students. Each student will complete six hours per week (90 hours/semester).

1 Class Hour, Prerequisite: Six credit hours of psychology or sociology and concurrent enrollment in three additional credit hours in psychology. For Human Services majors.

HONORS

HON 290-295
Honors Seminars — Special Topics (4)

Seminars offered for students enrolled in the Honors Program. Seminars are interdisciplinary in nature and the topics vary by semester. The seminar is intensive, challenging, and presents topics that are not generally available within regular course offerings. This course satisfies an elective requirement.

4 Class Hours; Prerequisite: Admission to Honors Program.

HON 299
Honors Independent Study – Selected Topics (1)

To receive an Honors diploma, a student must complete an independent study project under the supervision of a member of the faculty. Topics vary by agreement between the faculty member and the student.

1 Class Hour; Prerequisite: Admission to Honors Program.

CARDIOPULMONARY RESUSCITATION

HSV 101
Cardiopulmonary Resuscitation (1)

Procedures necessary in administering CPR in emergency situations. American Heart Association method of teaching with certification. Performance of mastery level by demonstration and exam. Will be given in 2-hour sessions to make a total of 8 hours.

HUMAN DEVELOPMENT

HUM 200
Joseph Campbell: Transformations of Myth Through Time (3)

A combined classroom and televiewing course. This course consists of 14 hour-long programs selected from over 50 lecture hours by Joseph Campbell, a noted author, scholar, teacher, and storyteller. The series is introduced by The Hero's Journey, an award-winning biographical film.

3 Class Hours

SIGN LANGUAGE

HUS 120
Basic Sign Communication I (3)

Introduction to conversationally relevant signs, finger-spelling, grammatical sign principles, and background, cultural, and linguistic information related to deaf people and sign language. The Direct Experience Method is used to help students learn to sign by experiencing the use of signs directly. Some emphasis is on non-manual communication (visual training, gestures and mime are used to help develop a comfort level for using face, hands and body for communication purposes). Approximately 400 signs are introduced.

3 Class Hours

HUS 220
Basic Sign Communication II (3)

Review of Basic Sign I. Expressive and receptive fingerspelling as well as recall of vocabulary. Sign vocabulary is further organized around basic conversational topics and questions. Sign grammatical principles are expanded and practiced. Approximately 300 signs are introduced.

3 Class Hours; Prerequisite: HUS 120 Basic Sign Communication I.

HUS 230
Basic Sign Communication III (3)

Additional and expanded topics for conversation are introduced with the associated vocabulary. Variations of signed messages by incorporating different sign principles and mime. More emphasis on conversational fluency in sign. The student will be able to generate increasingly more complex signing structures. Approximately 300 additional signs are introduced.

3 Class Hours; Prerequisite: HUS 220 Basic Sign Communication II.

INTERIOR DESIGN

INT 120
Surface Materials for the Interior (2)

Appropriate use of fabrics, wood, laminates, tiles, vinyls, metals and glass is introduced. Durability, cleanability, and flammability of materials will be studies. Aesthetic considerations will be explored. Field trips are an integral part of this course. Excellent for students interested in the building or hospitality industry. Required for Interior Sequence students.

2 Class Hours

INT 210
Interior Design I (4)

The studio interior design course requires the student to become well acquainted with the impact of the designed physical environment. Practical, aesthetic and psychological aspects of the built environment are addressed. Skills including conceptualizing in three dimensions, drawing in scale and presentation techniques both graphic and oral are developed. Historic aspects of design and influential architects, designers, journalists, and manufacturers will be investigated. Basic design elements will be applied to two major projects, one residential, one commercial.

2 Class Hours, 4 Studio Hours; Prerequisites: ART 105; one art history ART 102, 103, 108, 109, 110 or 111; CIV 105 and 159 or CIV 113 and 119.

INT 299
Independent Study: Interior Design (1-4)

See ART 299

ITALIAN

ITA 101, 102
Beginning Italian (4, 4)

Basic principles of grammar and syntax. Emphasis on oral practice in classroom. Reading and discussion of graded literary and cultural texts.

4 Class Hours; Prerequisite: ITA 101 Beginning Italian for ITA 102.

ITA 201
Intermediate Italian I (3)

Comprehensive review of grammar and structure of the language. Intensive reading of literary works as a basis for topics of conversation in Italian in the classroom. Emphasis on aural comprehension and oral practice in classroom.

3 Class Hours; Prerequisite: ITA 102 Beginning Italian.

ITA 202
Intermediate Italian II (3)

Intensive reading of literary works of recognized authors as a basis for topics of conversation in Italian in the classroom.

3 Class Hours; Prerequisite: ITA 201 Intermediate Italian I.

ITA 299
Independent Study: Italian (1-3)

An individualized student project concerned with advanced work in specific area of Italian. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 semester hours of college level work in Italian.

LAW/PARALEGAL

LAW 110
Survey of Paralegalism (3)

Role of the paralegal and attorney. Introduction to jurisprudence and functions of administrative agencies. Local, state, federal courts. Introduction to contracts, torts, negligence, criminal procedure, real property law, law office management. Legal terminology.

3 Class Hours

LAW 120
Advanced Paralegalism (3)

Continuation of law office management. Introduction to research techniques, family law, surrogate, wills and estates, agency and partnership, bankruptcy, corporate law, commercial paper, workman's compensation with procedures and practices of each. Legal terminology.

3 Class Hours

LAW 200
Real Property Law (3)

Comprehensive survey of law of real property, emphasizing, practical application to a paralegal function. Analysis of form of deeds, bonds, notes,mortgages, assignments, discharges, purchase of contracts, leases, options. Training in searching title, basic understanding of abstracts of title, real property litigation, estates, condemnation and foreclosure.

3 Class Hours; Prerequisite: PLA 110 Survey of Paralegalism or permission of department.

LAW 207W
Legal Writing and Research (3)

Development of legal research and drafting skills through use of digests, reporter systems, and other features of law libraries. Analysis of various types of legal documents for clarity, composition, conciseness. Practice in research and drafting of legal documents. Writing Emphasis Course.

3 Class Hours; Prerequisites: PLA 110 Survey of Paralegalism, ENG 110 Written Expression I, and 3 additional credits in PLA or department permission.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

LAW 215
Estates, Probates and Trusts **(3)**

Disposition of descendent's property, law of interstate succession, execution and probate of wills, nature and creation of trusts and the administration of estates and trusts, estate and gift tax preparation.

3 Class Hours; Prerequisite: PLA 110 Survey of Paralegalism or permission of department.

LAW 220
Contracts **(3)**

The law of contracts, their historical significance, formation, validity interpretation, transfer or contractual rights. Assignment, third party beneficiaries, discharge, breach and remedies. (BUS 118 Business Law I may be substituted with department permission.)

3 Class Hours

LAW 222
Medical Law **(3)**

General coverage of how legal and medical issues are inter-related, including right to treatment, organ transplant, right to die, abortion issues, medical malpractice, informed consent, insanity defense, surrogate mothers. Lecture and discussion. How these topics affect the role of the attorney and paralegal in servicing client needs.

3 Class Hours

LAW 225
Family Law **(3)**

Pleadings relative to general practice of law in relationships to the family unit. Laws relating to marriage, divorce, annulment, custody and support, adoption, name change, guardianship, paternity. Written pleadings and necessary research pertaining to these aspects of family law.

3 Class Hours

LAW 226
Taxation Law for Paralegals **(3)**

Principles of federal taxation, analysis of IRS code and related case law, emphasis on law and concepts of taxation, basic and advanced tax law terminology, litigation involving the IRS. Exploration of social changes, and factors involving tax problems, current issues in tax reform, perspective of the paralegal regarding resolution of tax disputes.

3 Class Hours

LAW 227
Constitutional Law **(3)**

The practice of everyday general law as affected by the U.S. Constitution, and the Bill of Rights. Issues of contemporary concern including cases of local courts and of the Supreme Court and their implications for law in general and society at large.

3 Class Hours

LAW 240
Corporate Law **(1)**

Types, uses and organization of the corporation, antitrust and securities law, mergers and consolidation, liquidation and dissolution.

1 Class Hour - 5 Week Session.

LAW 250
Municipal Law **(1)**

Structure and operations of local government in New York State. Evolution of local government in New York during the first two centuries of its existence. Laws, ordinances, and operations.

1 Class Hour - 5 Week Session.

LAW 251
Federal Civil Procedure **(1)**

Federal court system, rules of civil procedure including pleading, motions, depositions, litigation procedures and the role of the paralegal.

3 Class Hours - 5 Week Session.

LAW 252
Applied Real Estate **(1)**

Role of the paralegal in Real Estate transactions including agreements, abstracts, preparation of documents, contracts, and closing procedures. Students conduct a "mock" real estate transaction.

3 Class hours - 5 Week Session.

LAW 253
Computers in the Law Office **(1)**

Computer applications including hardware and software, financial management, word processing, real estate practice packages, computerized research, litigation support, and document management.

3 Class Hours - 5 Week Session.

LAW 260
Labor-Management Relations (Labor Law) **(1)**

Labor-management relations in the public and private sectors. Taft-Hartley Act, National Labor Relations Act and Wagner Act, unfair labor practices, labor contracts, arbitration and mediation, availability of injunctions in labor disputes.

1 Class Hour - 5 Week Session.

LAW 270
Vehicle and Traffic Law **(1)**

Regulations of traffic within the state of New York. Emphasis on violations and traffic-related misdemeanors resulting from violation of the rules of the road and court proceedings resulting therefrom.

1 Class Hour - 5 Week Session.

LAW 280
Litigation and Trial Preparation **(1)**

Intake procedure, systems and analysis, concepts of jurisdiction and venue, parties to an action, pleadings, pre-trial procedures, motions and special practice, special proceedings, trials, judgments and appeals.

1 Class Hour - 5 Week Session.

LAW 290
Landlord-Tenant Relations **(1)**

Problems faced by landlords and tenants, private housing, live-in arrangements, covenants, leases, warranties. Tenant and landlord rights and obligations.

1 Class Hour - 5 Week Session.

LAW 295
Paralegal Practicum **(4)**

Designed for students without previous exposure to the legal field to observe and study operations, policies, and procedures performed by paralegals in various settings, (private firms, public agencies, commercial corporations, etc.). Emphasis on attorneys and paralegals interaction and paralegal relations with areas outside the office (clients, municipal agencies, other firms, commercial institutions, other legal agencies, etc.). Final report integrating the practical and theoretical aspects of their experiences.

2 Class Hours and 4 Laboratory Hours; Prerequisites: 30 credits of counseled coursework, at least 12 of which must be in PLA credits or permission of department chairperson.

LAW 299
Independent Study: Paralegal **(1-3)**

An individual student project in paralegal studies which is beyond the scope or requirements of the courses offered by the program. Conducted under the direction of a faculty member or attorney, and approved by the program coordinator.

Prerequisite: PLA Survey of Paralegalism plus three additional hours in a 200 level PLA course.

LITERATURE

All Literature Courses are "W" Courses.

English 110 College Writing I is the Prerequisite for all Literature Courses.

LIT 200
Introduction to Literature

A study of works representing different literary genres and themes. Introduction to the practice and process of literary analysis.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 210
Studies in United States Literature I **(3)**

A study of United States literature from Pre-Colonial times through the 19th century, exploring recurrent themes and motifs in the works of both newly discovered and long-recognized authors. Emphasis on engaging student curiosity, eliciting student response, and fostering student development of critical analysis and interpretation through close reading of texts, class discussion, and formal and informal writing assignments.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 211
Studies in United States Literature II **(3)**

A study of United States literature from the late 19th century to the present, exploring recurrent themes and motifs in the works of both newly discovered and long-recognized authors. Emphasis on engaging student curiosity, eliciting student response, and fostering student development of critical analysis and interpretation through close reading of texts, class discussion, and formal and informal writing assignments.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 214
Studies in British Literature I **(3)**

History and development of British literature from the Middle Ages to the 18th century. Selections of literary merit from prose, drama, poetry.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 215
Studies in British Literature II **(3)**

History and development of British literature from the beginning of the 18th century to the middle of the 20th. Selections of literary merit from prose, poetry, drama.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 220
World of the Short Story **(3)**

Close reading and analysis of stories produced in different times and places. Attention to the relationships among author, text, reader, and context in the making of meaning.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 230
American Drama **(3)**

A survey of American drama. Examination of dramatic theories and techniques, and consideration of historic and thematic problems in American drama.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 233
World Drama **(3)**

A survey of world drama produced in both Western and non-Western cultures. Examination of dramatic theories and techniques, and consideration of dramatic themes common to diverse cultures.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 235
Tragic and Comic Vision of Shakespeare **(3)**

Shakespeare as both dramatist and poet. Emphasis on selected comedies, histories, tragedies.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 240
The Poetic Experience: Sight and Sound **(3)**

This course exposes students to poetry from different countries and cultures, to important aspects of poetic language, and to diverse poetic forms. Students will read, discuss, and write about poetry, and strive to understand what poetry portrays of human experience. Students will also write poems about their own experience. In doing so, students will learn how poems are built or structured.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 250
Women and Literature: Other Perspectives **(3)**

Critical analysis and evaluation of literary works by and about women produced in diverse socio-political contexts. Emphasis upon the relationship between the text and its cultural setting and upon other, non-traditional critical perspectives, including feminist perspectives.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 253
Psychological Investigation in Literature **(3)**

The application of Jungian, Freudian, and other psychological theories and insights to selected short stories, novels, and poems to promote more penetrating appreciation of characters' motivations and actions and the literary work in general.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 260
Detective Fiction **(3)**

A critical study of one of the most popular literary forms of our time, designed for armchair detectives. Starting with Poe, Conan Doyle (Sherlock Holmes), and other classics in the field, the course traces the development of the detective story from its puzzle-solving beginnings to the modern psychological novel of crime and detection.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 263
Children's Literature **(3)**

A survey of children's literature, including story, novel, and poetry, produced in various times and places. Emphasis upon the use of critical theories to develop multiple interpretations.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 267
An Introduction to Science Fiction

This course will survey science fiction works from various genres such as poetry, the novel, and the short story. It will provide students with a historical overview of the field of science fiction by exposing them, through readings and lectures, to works from the 19th and 20th centuries. Titles chosen will reflect their importance in the literary development of science fiction over the last two centuries. The essence of the course will consist of close readings and analyses of the texts for their artistic qualities as well as their representations of social trends and ideas. Students will learn how to do research on the Internet, as it is one of the foremost domains of current cyber fiction. One section of the course will deal with the history of science fiction in the cinema. Students will come away from the course with an understanding of hard science fiction, utopias and dystopias, cyber fiction, the pulps, fantasy fiction, the Golden Age, and speculative fiction.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 270
Twentieth-Century Working-Class Literature of North America **(3)**

An examination of literature in which 20th-century North American working-class writers explore working-class life. Emphasis upon the investigation of broad themes, such as the role of work in the shaping of values and identity and the impact of work upon human relationships. Multi-ethnic and multi-racial perspectives; issues of gender and sexuality. Attention given to the socio-political contexts in which works were produced.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 272
Literature of the North American Wild **(3)**

This course aims to involve the student in the thinking of seminal writers who struggled to define human beings' relationship to the natural world. The approach is both literary and historical. It is historical in that it begins with the overwhelming effect that the fecundity of the new world had on writers and ends with the effect that profound environmental problems are having on thinkers who use the techniques and forms of expression usually identified with writers of creative and imaginary literature. Students will read essays, fiction, and poetry. Some videos and media presentations will be viewed.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 273
Women About Women in Russian and American Short Stories **(3)**

An examinatioin of short stories created by 20th century Russian and American women writers. Emphasis on theme and structure in contemporary texts; some cross-cultural investigations of relationships between settings and the context of women's lives.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 274
Introduction to African American Literature **(3)**

This will be a survey course that will introduce students to African American literature from Colonial America to the present. Various genres, representative works, and major writers will be examined in terms of development, theme, structure, and context. This will be a study of African American literature as both artistic and cultural expression.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 276
Native American Literature **(3)**

A survey of the literature of selected Native American tribes in distinct geographical areas of what is now known as the United States (focusing on the Northeast, Southeast, Plains, and Southwest). Critical reading of traditional and contemporary works, with emphasis upon translated myths, legends, and songs handed down through the oral tradition. An examination of how Native American oral tradition, myth, and genre challenge "Western" notions of "literature." Investigation of the texts as both artistic and cultural expression.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LIT 290
Banned Books **(3)**

This course will survey literary works from several genres, including drama, novels, poems, and stories that have been censored or banned at one time and may still be prohibited in some places. The titles will be chosen for their importance to the study and interpretation of literature and to censorship history. Emphasis will be placed on close reading of the texts and on research into the artistic, political, and social reasons for their censorship. Some of the reading material will come from free Internet sources such as The Gutenberg Project and Banned Books Online.

3 Class Hours; Prerequisite: ENG 110 College Writing I.

LEARNING SKILLS

LRS 101
Study Management **(1/2)**

General principles of academic success, relationship of outside work and study, scheduling and organizing time, study and concentration, learning style evaluation. Students will construct a working study schedule.

3 Class Hours for 3 Weeks

LRS 102
Memory and Exams (1/2)

Theories of memory. Methods of review, strategies for taking essay and objective examinations dealing with test anxiety.

3 Class Hours for 3 Weeks

LRS 103
Textbook Mastery (1/2)

Use of college textbooks as study aids, principles of effective text reading, text study systems. Extensive application of these principles in the student's own textbook.

3 Class Hours for 3 Weeks

LRS 104
Listening and Notetaking (1/2)

Examination of organizational patterns as they exist in oral communication. Exploration of systems on notetaking, and application of systems to student's own lectures and notes.

3 Class Hours for 3 Weeks

LRS 105
Learning Skills (2)

Principles and techniques of academic success. Focus will be on classroom skills such as text reading and notetaking skills. time management and exam taking strategies also will be covered. All techniques will be directly applied in the students' content courses.

3 Class Hours for 12 Weeks; course starts at the beginning of the third week of the semester; Corequisite: Students should be enrolled in a credit-bearing course which includes a textbook.

Note: Students may not receive credit toward graduation requirements from LRS 101/102/103/104/106 if they use LRS 105.

LRS 106
College Success (3)

The goal of this course is to help students to become more aware, active, and capable learners. Emphasis will be on a core of specific study strategies based on learning theory, such as reading academic texts, making notes from texts and lectures, managing study time effectively, and taking exams successfully. Students will apply these strategies to their own courses.

Note: Students may not receive credit for LRS 101/102/103/104/105 if they receive credit for LRS 106 to fulfill graduation requirements.

LRS 110
The Research Paper (1)

Shaping the Paper: Development of a topic, location of appropriate resources and digestion of the material. Writing the Paper: Outlining effective composition and proper form. A hands-on approach in which students actually research a topic and compose a term paper.

2 Class Hours for 8 Weeks; Course starts at the beginning of the fifth week of semester.

LRS 120
The Art of Thinking (1)

Logic as an art. Logical principles taught in imaginative ways to achieve understanding. Emphasis on the practice of reasoning. Fundamental logic rules are taught as tools to enable the students to gain experience and confidence in thinking about issues that are important to them.

2 Class Hours for 8 Weeks; Course starts at the beginning of the fourth week of the semester.

LRS 130
Introduction to Microcomputers and Word Processing (2)

Introduction to all aspects of the microcomputer through lecture and practice. Students will master at least one word processing package, as well as gain familiarity with both a graphics and a spreadsheet package. This course is intended for students who have no prior knowledge of microcomputers.

3 Class Hours for 10 Weeks; Course starts at the beginning of the fifth week of the semester.

LRS 150
Advanced Learning Skills (3)

An intensive course in the examination and exploration of the learning process. Students will synthesize their knowledge, understanding, and appreciation of the learning process to plan, implement and evaluate their own peer tutoring. Emphasis on workshopping and collaborative learning. Intended for tutors, Supplemental Instruction Leaders, and students considering a career in education.

3 Class Hours; Prerequisite: Department Chair Interview and Approval.

MATHEMATICS

MAT 090
Foundations for College Mathematics I (0)

Arithmetic of whole numbers, fractions, decimals and signed numbers. Percent, ratio and proportion. Measurement, metric units and basic geometric concepts. Language of algebra and solving simple equations. Descriptive statistics. Estimation, problem solving, critical thinking, writing and communication skills are developed in group activities. This course is designed to provide the skills necessary for students to successfully complete MAT 092, MAT 113, MAT 114.

4 Class Hours

MAT 092
Foundations for College Mathematics II (0)

Signed numbers, exponents and equations in one variable. Evaluating formulas and algebraic expressions. Factoring and the distributive property. Graphing, solving linear equations and inequalities in two variables. Descriptive statistics. Estimation, problem solving, critical thinking, writing, and communication skills are developed in group activities.

4 Class Hours; Prerequisite: MAT 090 Foundations for College Mathematics I or equivalent.

MAT 094
Applications of Algebra with Trigonometry I (0)

Laws of integer exponents, functional notation, addition and subtraction of polynomials, factoring, linear equations, systems of equations, determinants, right triangle trigonometry, elementary descriptive statistics, process control charts, sampling plans, and normal distribution.

4 Class Hours; Prerequisite: MAT 092 Foundations for College Mathematics II or equivalent.

MAT 095
Metric Conversions and Dosages (0)

Common fractions and decimal fractions. Metric computations. Apothecary systems. Apothecary, metric and household conversions. Designed to meet the mathematics proficiency required for clinical nursing course.

1 Class Hour; Prerequisite: Placement by Nursing Department.

MAT 096
Elementary Algebra and Trigonometry (0)

Integer exponents; polynomials; factoring; functions; simple rational expressions; linear, quadratic, and rational equations; linear inequalities; graphs of lines and parabolas; linear systems; geometry; right triangle trigonometry.

5 Class Hours; Prerequisite: MAT 092 Foundations for College Mathematics II or equivalent.

MAT 097
Intravenous Medications and Pediatric Dosage (0)

Calculations of pediatric dosages based on body weight. Calculation of minimum fluid requirements. Designed to meet the mathematics proficiency required for second year nursing program.

1 Class Hour; Prerequisite: Placement by the Nursing Department.

MAT 098
Applications of Algebra with Trigonometry II (0)

Composition of functions, inverse functions, factoring and rational expressions, solving systems with matrices, quadratic equations and conic sections, direct and indirect variation, trigonometric identities and equations, graphs of exponential and logarithmic equations, properties of logarithms.

4 Class Hours; Prerequisite: MAT 094 Applications of Algebra with Trigonometry I or equivalent.

MAT 103
Introduction to the T185 and T186 Calculators (.5)

A hands-on short course covering basic graphing, storing and solving of equations, various mathematical and statistical operations, conversions, vector and complex arithmetic, and the "Custom" menu. Students will link with other 85's and 86's, and to a desktop PC, and be able to get printouts of assignments. The course emphasis will change as the department adopts more advanced calculators in the future. The course will meet the first 5 weeks of the semester, and students must have their calculators at the first class meeting.

1.25 Class Hours for 5 weeks.

MAT 113
Mathematical Explorations I (3)

An introduction to the variety and structural beauty of mathematics. Topics include: descriptive statistical measures and graphs, probability, combinatorics, set theory, normal distribution, informal and formal statistical inference, group decision making involving achieving fairness, apportionment problems and voting schemes. For Liberal Arts and Business students, not for Science majors.

3 Class Hours; Prerequisite: MAT 090 Foundations for College Mathematics I or equivalent.

MAT 114
Mathematical Explorations II (3)

An introduction to the variety, structural beauty and practical applications of mathematics. Topics include: networks, trees, solving scheduling problems, sequences, applications of geometric growth, congruent and similar triangles, the Golden ratio, fractals, symmetry and transformations. For Liberal Arts and Business students, not for Science majors.

3 Class Hours; Prerequisite: MAT 090 Foundations for College Mathematics I or equivalent.

MAT 117
Elementary Finite Math w/Algebra (4)

Sets, probability, matrix algebra, graphing, inequalities, linear programming, permutations and combinations, linear models of equilibrium, systems of linear equations, solving equations and inequalities.

4 Class Hours; Prerequisite: MAT 092 Foundations for College Mathematics II or equivalent.

MAT 119
Modern Basic Mathematics I (3)

Exploration of fractions, number bases, descriptive statistics, data analysis, estimation, and shapes from plane and solid geometry. Course uses a project-based instruction methodology. Intended for elementary education majors.

3 Class Hours; Prerequisite: MAT 092 Foundations for College Math II or equivalent.

MAT 120W
Modern Basic Mathematics II (3)

Functions of one or more variables with graphs and applications, measurement, unit cost, unit conversions, simple probability, odds, expected value, patterns, isometrics, tilings, sequences, Pascal' s triangle and pattern block manipulation. The course is separated into project modules each of which involves group work, research, writing assignments and a completed project. For Liberal and General Studies students — recommended for elementary education majors. (Writing Emphasis Course)

3 Class Hours; Prerequisite: MAT 092 Foundations for College Mathematics II or equivalent and ENG 110 Written Expression I or equivalent.

MAT 124
Statistics I (3)

Descriptive statistics, organization and presentation of data, measures of central tendency, variance, standard deviation, exploratory data analysis, binomial distribution, statistical inference, hypothesis testing, confidence intervals, normal distribution, chi-square distribution, students t-distribution, F-distribution, correlation and regression. (Students may not use both MAT 124 and MAT 125 to meet graduation requirements.)

3 Class Hours; Prerequisite: MAT 092 Foundations for College Mathematics II or equivalent.

MAT 125
Statistics I w/Computers (3)

An introduction to the computer language Minitab and its application to descriptive statistics, organization and presentation of data, measures of central tendency and dispersion, exploratory data analysis, binomial distribution, statistical inference, hypothesis testing, confidence intervals, normal distribution, Student t-distribution, chi-square distribution, F-distribution, correlation and regression. (Students may not use both MAT 124 and MAT 125 to meet graduation requirements.)

3 Class Hours; Prerequisite: MAT 092 Foundations for College Mathematics II or equivalent.

MAT 136
Intermediate Algebra and Trigonometry (4)

Rational exponents; synthetic division; rational expressions; completing the square; circles; complex numbers; quadratic formula; linear systems; inverse functions; graphs and properties of logarithms and exponential functions; reference angles; radian measure; graphs of sine, cosine, and tangent; basic trigonometric identities and equations; Law of Sines; Law of Cosines.

4 Class Hours; Prerequisite: MAT 096 Elementary Algebra and Trigonometry or equivalent.

MAT 145
Finite Mathematics (3)

Matrices, matrix operations, solving systems of equations using matrices, simplex method, probability, game theory, graph theory, and networks. (Students may not use both MAT 145 and MAT 117 to meet graduation requirements.)

3 Class Hours; Prerequisite: MAT 098 Applications of Algebra with Trigonometry II or equivalent.

MAT 146
Introduction to Calculus (3)

Analytic geometry of lines and parabolas; functions and their graphs; limits and continuity; differentiation rules and applications; integration techniques and applications; exponential and logarithmic functions and applications. Recommended for Social Science, Health Science and Business students. Not for Mathematics majors or Science majors in the A.S. degree program.

3 Class Hours; Prerequisite: MAT 098 Applications of Algebra with Trigonometry II or equivalent.

MAT 148
Applied Technical Mathematics I (4)

The first course in a two-semester sequence of intermediate algebra and trigonometry with technical applications. Topics included are: the trigonometric functions, vectors, units of measurement and approximate numbers, fundamental concepts of algebra, functions, and graphs, systems of linear equations, determinants, factoring and fractions, quadratics, variation and geometry, (areas and perimeters of common plane figures, volumes and surface areas of common solids). The scientific calculator will be used throughout the course. This course applies to industry specific degree programs only.

4 Class Hours; Prerequisite: MAT 098 Applications of Algebra with Trigonometry II or equivalent.

MAT 149
Applied Technical Mathematics II (4)

The second course in a two-semester sequence of intermediate algebra and trigonometry with technical applications. Topics included are: trigonometric functions of any angle, oblique triangle, graphs of trigonometric functions, exponents and radicals, exponential and log functions, basic operations with complex numbers, inequalities, introduction to statistics. The scientific calculator will be used throughout the course. This course applies to industry specific degree programs only.

4 Class Hours; Prerequisite: MAT 148 Applied Technical Mathematics I or equivalent.

MAT 150
College Technical Mathematics (4)

A real world approach to algebra and trigonometry emphasizing computational skills and graphing using application problems. Algebraic operations, functions, graphs, exponents, logarithms, inequalities, systems of inequalities. Trigonometric identities, inverse trigonometric functions and their graphs. Complex numbers, DeMoivre's Theorem, and vectors. This course is for students in the Applied Tech sequence only.

4 Class Hours; Prerequisite: MAT 098 Applications of Algebra with Trigonometry II or equivalent.

MAT 156
Algebra and Trigonometry for Calculus (4)

Real exponents; nonlinear and absolute value inequalities; Rational Root Theorem; graphs of rational functions; logarithmic and exponential equations; conic sections; determinants; general systems of equations; trigonometric and inverse trigonometric functions and graphs; trigonometric identities, equations, and inequalities; DeMoivre's Theorem.

4 Class Hours; Prerequisite: MAT 136 Intermediate Algebra and Trigonometry or equivalent.

MAT 160
Applied Calculus I (4)

Basic analytic geometry, distance formula, equations of lines and conics, limits, L'Hospital's rule, continuity and the derivative; differentiation of polynomials, maxima and minima; differentials and approximation; applications in kinematics and circuits; the definite integral and applications to finding area, center of gravity, volume of revolution, work done; approximate integration; differentiating products and quotients; implicit differentiation and related rates, differentiation and integration of logarithmic, exponential, trigonometric and inverse trigonometric functions.

4 Class Hours; Prerequisite: MAT 150 College Technical Mathematics or equivalent.

MAT 181/171
Calculus I (4)

(Available in ASL mode)

A university parallel calculus course covering functions, limits and continuity. Differentiation and integration of polynomial, rational, trigonometric, logarithmic, exponential, and inverse trigonometric functions using computational, intuitive and technology assisted methods. Applications including curve sketching, rectilinear motion, related rates, maxima and minima. Summation, integration and the Fundamental Theorem of Calculus. Emphasis will be placed on analyzing problems using technology assisted methods.

4 Class Hours; Prerequisite: MAT 156 Algebra & Trigonometry for Calculus or equivalent.

Note: Students may not use more than one of the following to meet graduation requirements: MAT 146, MAT 160, MAT 181.

MAT 182/172
Calculus II (4)

(Available in ASL mode)

Applications of the definite integral including area, volume, arc length and Fourier polynomials. Numeric integration using approximation technioques. Techniques of integration including parts, partial fractions and trigonometric substitution. Improper integrals, detecting convergence and L'Hospital's rule. Sequences and infinite series tests for convergence, power series, Maclaurin series and Taylor series. An introduction to differential equations and elementary solution techniques. Polar curves and calculus in polar coordinates. Topics in multivariable calculus.

4 Class Hours; Prerequisite: MAT 181 Calculus I.

MAT 224

Statistics II (3)

Review of probability fundamentals, discrete random variables and probability distributions. Continuous random variables and probability distributions, joint probability distributions and random samples, central limit theorem, point estimation, interval estimations, hypothesis testing, analysis of variance, multifactor analysis of variance, linear regression and correlation, nonlinear and multiple regression, the analysis of categorical data and non-parametric procedures.

3 Class Hours; Prerequisite: MAT 124 Statistics I or MAT 125 Statistics w/Computers and MAT 096 Elementary Algebra and Trigonometry or equivalent.

MAT 245

Design of Experiments (3)

This course is an introduction to the most common types of statistical designs and analyses of experiments. Topics include single-factor experiments with randomized blocks, Latin squares, incomplete blocks, two-factor experiments, 2^k and 3^k designs with confounding, fractional designs, and other selected topics.

3 Class Hours; Prerequisite: MAT 224 Statistics II.

MAT 250

Discrete Mathematics (4)

Sets, functions, mathematical induction, relations, partially ordered sets, combinatorics including permutations, the pigeonhole principle, binomial and multinomial coefficients, recurrence relations, generating functions, the principle of inclusion-exclusion. Graph theory, including paths and connectedness, minimum length paths, Eulerian and Hamiltonian graphs, graph isomorphisms, trees, planar and nonplanar graphs.

4 Class Hours; Prerequisite: MAT 182 Calculus II.

MAT 264

Linear Algebra (4)

Linear equations and matrices, vector spaces, inner product spaces, linear independence, linear transformations. Determinants and Cramer's rule, systems of homogeneous equations, Gram-Schmidt process and diagonalization. Eigenvalues and eigenvectors and applications.

4 Class Hours; Prerequisite: MAT 182 Calculus II.

MAT 266

Introduction to Higher Math (3)

This course provides a rigorous introduction to the concepts of sets, functions, sequences, series, metric spaces. Emphasis will be placed on writing mathematics clearly and concisely. Recommended for Mathematics majors or Computer Science and Engineering Science students as advised.

3 Class Hours; Prerequisite: MAT 182 Calculus II or permission of the instructor.

MAT 281

Calculus III (4)

A continuation of multivariable calculus. Triple integrals with cylindrical and spherical coordinates. Vector geometry and vector calculus in two and three dimensions. Calculus of multivariable functions: gradient, extrema and optimization (with and without constraints). Line and surface integrals. Green's theorem and Stokes' theorem.

4 Class Hours; Prerequisite: MAT 182 Calculus II or equivalent.

MAT 282

Differential Equations w/Linear Algebra (4)

First and second order differential equations. Matrices, determinants, eigenvalues and eigenvectors, and systems of linear equations. Linear independence, the Wronskian, and differential operators. Homogeneous and nonhomogeneous linear differential equations with constant coefficients. Methods of undetermined coefficients, and variation of parameters. Systems of linear differential equations, Laplace transforms, and power series solutions.

4 Class Hours; Prerequisite: MAT 182 Calculus II.

MAT 299

Independent Study (1-4)

The student undertakes an independent project in his/her specialty under the guidance of a faculty member. Only one independent study course alloweed per semester. Consideration may be given a project involving work assignment.

Prerequisite: Department Chairperson Permission.

MEDICAL ASSISTANT

MDA 102

Medical Assisting Science (2)

Introduction to the profession of medical assisting. Qualifications and duties, professional affiliation, history of medicine, ethics and professionalism, the role of the medical assistant in the physician's office. Interactions with patients and staff.

2 Class Hours

MDA 104

Keyboarding and Medical Word Processing (3)

Introduction to and development of basic keyboarding skills on typewriters and computer keyboards and introduction to word processing. Students will have the opportunity to learn keyboarding and word processing functions and apply that knowledge with hands-on development of skills. Emphasis will be on application to medical correspondence, reports, and chart notes. For Health Science students only.

3 Class Hours; Prerequisite: BIO 131 Human Biology and HIT 106 taken concurrently or consent of instructor.

MDA 106/HIT 107

Medical Transcription and Correspondence (4)

Introductory course in computers with emphasis on Word Processing. Development of correspondence and medical reports on the computer using dictaphones. Fundamentals of transcription, speed building and accuracy using medical terminology.

2 Class Hours, 4 Laboratory Hours; Prerequisite: HIT 106 Medical Terminology I and MDA 104 Keyboarding or consent of the instructor.

MDA 114

Standard First Aid Management of Emergencies (1)

The causes, care and prevention of accident/emergency lifesaving situations. Mastery level of learning for the proficiency of basic skills. Certification by National Safety Council. Recognizing, managing and aiding the physician in medical emergencies and maintaining emergency supplies.

2 Laboratory Hours

MDA 115

Medical Assisting Procedures I (4)

Basic clinical procedures of medical assisting in the physician's office. Use and management of diagnostic instruments and equipment. Related patient care, professional ethics, medical terminology nomenclature. For Medical Assisting students.

3 Class Hours, 2 Laboratory Hours; Prerequisite: HIT 106 Medical Terminology and MDA 102 Medical Assisting Science or consent of instructor.

MDA 201

Medical Assisting Procedures II (4)

Introduction to basic microbiology, hematology and urinalysis. Collection, preparation and testing of blood, urine and body fluids. Significance of laboratory analysis. For Medical Assisting students.

2 Class Hours, 4 Laboratory Hours; Prerequisite: BIO 132 Human Biology II, MDA 115.

MDA 206

Medical Office Management (4)

Medical office administrative procedures, such as bookkeeping principles and practices, patient health records, insurance forms, banking and postal services, payroll records, patient accounts, office machines. Mechanics of applicable medical correspondence. Appointment scheduling, supplies and inventory. Emphasis on practical application of administrative techniques. For Medical Assisting students.

3 Class Hours, 2 Laboratory Hours; Prerequisites: MDA 102 Medical Assisting Science and MDA 106 Medical Correspondence and Communications.

MDA 207

Advanced Medical Office Management (4)

Accounting, payroll and bookkeeping procedures. Computerized applications for payroll. Banking, spreadsheets and reconciliations of bank statements. Use of Peg Board/Write It Once System integrated with the accounting objectives. Preparation of Internal Revenue deposits, records, and year-end reports for the Medical Office. For Medical Assisting students only.

3 Class Hours, 2 laboratory Hours; Prerequisites: MDA 102 Medical Assisting Science, MDA 106 Medical Correspondence and Communications Using Computers, concurrent with MDA 206 Medical Office Management.

MDA 208

Medical Ethics, Law and Economics (3)

Emphasizing the medical ethics which set the standards of conduct for physicians, as well as guidelines for medical assistants. Requirements to practice medicine, legal liabilities of the profession, and the importance of medicolegal consent forms. Legal arrangements of private medical practices, medical care financing, and systems of health care delivery.

3 Class Hours

MDA 210

Pharmacology (2)

A practical course relevant to health science courses. Emphasizes knowledge of prescriptions and prescription writing. Basic principles of mathematics in pharmacy. Drugs governed by U.S.P. standards which are in common use and the generic-pharmaceutical relationship. Drug grouping action in relation to human physiology.

2 Class Hours; Prerequisite: BIO 132 Human Biology II or consent of instructor.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

MDA 211
Medical Assisting Procedures III (4)

Advanced technical procedures in medical assisting specifically oriented to the various medical specialties. Techniques of electrocardiography, audiometry and physical therapy. Field trips and practical experiences give additional background outside of the classroom.

3 Class Hours, 2 Laboratory Hours; Prerequisite: For Medical Assisting Students. BIO 132 Human Biology, MDA 115, Medical Assisting Procedures I and II MDA 201.

MDA 245
Directed Practice (5)

Directed practical experience as an extern in physician's offices, medical centers, school health departments, rehabilitation clinics, and other health care facilities, weekly seminar. For senior Medical Assisting students who must have a 2.0 overall average.

1 Class Hour, 16 Laboratory Hours; Prerequisites: MDA 206 Medical Office Management and MDA 201 Medical Assisting Procedures II. MDA 211 Medical Assisting Procedures III and MDA 210 Pharmacology must be taken previously or concurrently.

MECHANICAL

MET 112
Metrology (2)

The study of the science of measurement. Accuracy, precision and reliability compared. Standards, including surface finish. Students learn to use the steel rule, calipers, micrometers, fixed gauges, feeler gauges, radius gauges, gauge blocks and surface plates, height and planer gauges, V-blocks, toolmaker's flat, mechanical indicating equipment, visual guage, air gauges, toolmaker's microscope, optical flats and angle measuring equipment. Calibration of instruments and appropriate recordkeeping.

3 Class Hours; Prerequisite: MAT 124 Statistics I or MAT 098 Applications of Algebra and Trigonometry II.

MET 113
Engineering Drawing I w/CAD (2)

An introductory course in the fundamentals of engineering drawing and the basics of Computer Aided Drafting (CAD). Topics include use of the drawing instruments, geometric construction, orthographic projection, technical sketching, sectional and auxiliary views and proper dimensioning techniques. Computer Aided Drafting is introduced.

1 Class Hour, 3 Laboratory Hours.

MET 116
Engineering Drawing II w/CAD (3)

A second course in engineering drawing emphasizing the principles of descriptive geometry, working drawings, tolerancing methods, geometric dimensioning and tolerancing with an introduction to computer aided drawing.

2 Class Hours, 3 Laboratory Hours; Prerequisite: MET 113 Engineering Drawing I w/CAD.

MET 118
Survey of Basic Industrial Safety and First Aid (3)

Work area safety, safe material handling, tool and equipment safety, machinery safeguards, personal protection, electrical safety, hazardous materials and operation, fire prevention, understanding OSHA, first aid.

2 Class Hours

MET 121
Manufacturing Processes I (2)

A basic study of manufacturing materials and processes, such as cutting-tool materials and cutting fluids, electrical discharge machining, properties of materials, drilling and related hole making processes, joining processes and equipment, producing and processing ferrous and non-ferrous metals. Laboratory exercises provide an opportunity for actual practice in the operation of selected manufacturing equipment.

1 Class Hour, 3 Laboratory Hours.

MET 122
Manufacturing Processes II (3)

A continuation of the basic study of manufacturing processes. The nature of metals and alloys, heat treatment, various casting processes and the processing of metals by hot and cold working techniques. Special topics include screw thread systems and their measurement, indexing, gear terminology and manufacturing methods, tapers and Computer Numerical Controlled machining. Laboratory exercises parallel classroom topics and will provide the students with an opportunity to practice some of these manufacturing methods.

2 Class Hours, 3 Laboratory Hours; Prerequisite: MET 121 Manufacturing Processes I.

MET 127
Applied Manufacturing Processes I - IS (4)

A basic study of manufacturing materials and processes, such as: cutting-tool materials and cutting fluids, electrical discharge machining, properties of materials, drilling and related hole making processes, joining processes and equipment, producing and processing ferrous and non-ferrous metals. The nature of metals and alloys, heat treatment, gear terminology and manufacturing methods, various processes and the processing of metals by hot and cold working techniques. Laboratory exercises will provide an opportunity for actual practice in the operation of selected manufacturing equipment.

4 Class Hours

MET 128
Applied Manufacturing Processes II - IS (4)

A continuation of Applied Manufacturing Processes I: Basic study of manufacturing materials and processes, such as: properties of materials, heat treatment, and the processing of non-metals. Study of the structure, general properties, and applications of polymers, ceramics, composite materials; forming and shaping plastics and composite materials; abrasive machining and finishing; non-traditional machining processes; tribology, surface treatment, coating and cleaning; fabrication of microelectronic devices; engineering metrology and instrumentation, quality assurance, testing, and inspection; safety and product liability concerns. Laboratory exercises will provide an opportunity for actual practice in the operation of selected manufacturing equipment.

4 Class Hours; Prerequisite: MET 127 Applied Manufacturing Processes I.

MET 134
Statics (3)

Static force systems and equilibrium, free body diagrams, trusses, graphic statics, spatial force systems, friction, centroids, Moment of Inertia.

3 Class Hours; Prerequisite: MAT 150 College Technical Math I.

MET 141
Mechanical Drawing I (2)

An introductory course in the fundamentals of engineering drawing. Topics include lettering, geometric construction, basic dimensioning, orthographic projection, sectioning, auxiliary view, sketching and shape description.

1 Class Hour, 2 Laboratory Hours.

MET 142
Mechanical Drawing II w/CAD (2)

A continued study in engineering drawing with an introduction to a CAD System. Selected topics to include assembly drawings, fits and tolerances, geometric dimensioning and tolerancing along with an introduction to CAD.

1 Class Hour, 2 Laboratory Hours; Prerequisite: MET 141 Mechanical Drawing I.

MET 200
Senior Seminar (1)

Guest speakers intended to make the student aware of the changing elements of Mechanical Engineering. Topics may include Quality Assurance, Ethics in Engineering, Automation, Personal Computers, Survival Skills for Graduates, etc.

2 Laboratory Hours; Prerequisite: ENG 110 Written Expression.

MET 211
Basic Mechanical CAD (2)

Introduction to the College's Mechanical CAD System. Command structure, screen controls, and use of menus to create, edit, and manipulate geometry for 2D and 3D models. Use of special features for the production of fully detailed layout drawings from 2D and 3D models. File management. Selected topics.

1 Class Hour, 2 Laboratory Hours; Prerequisite: MET 116 Engineering Drawing II w/CAD or Department Chairperson approval.

MET 213
Advanced Mechanical CAD (2)

Use of the College's Mechanical CAD System to create, edit, and manipulate advanced 2D and 3D geometric entities. Use of multiple views, viewport, levels, masking, and color. Use of the axes options, construction planes and offsets, along with advanced 3D modeling techniques. Applications to assemblies and descriptive geometry. Selected topics.

1 Class Hour, 2 Laboratory Hours; Prerequisite: MET 116 Engineering Drawing II w/CAD or Department Chairperson approval.

MET 220
Programming CNC Machine Tools (3)

An introductory course in the fundamentals and some of the advanced principles os CNC Milling/Turning. Topics to include: Introduction to NC/CNC Machinery (history, input media and tooling), New Part Production Setup, Typical Controller Operations (store, load and edit programs) an "Manual Part Programming" of CNC machine tools using the industry standard "G" and "M" Codes.

2 Class Hours, 2 Laboratory Hours; Prerequisite: MET 122 Manufacturing Processes II.

MET 221
Tool Design (4)

Introduction to the problems of tool design with emphsis on planning the process of production, designing and developing the necessary tools, and utilizing available manufacturing facilities. Practical analysis and comparison of the use and cost of tools, jigs and fixtures, dies, molds and gauges as they are used in modern manufacturing.

4 Class Hours; Prerequisite: MET 122 Manufacturing Processes II and MAT 098 Applications of Algebra & Trigonometry II.

MET 222
Hydraulics and Pneumatics (3)

Basic theory of hydraulic and pneumatic systems. Combinations of systems in various circuits, basic designs and functions of circuits and motors, controls, electro-hydraulic servo-mechanisms, plumbing, filtration, accumulation and reservoirs.

2 Class Hours, 2 Laboratory Hours; Prerequisite: MET 132 Applied Mechanics.

MET 223
Computer Integrated Machining (3)

A continuation of Programming CNC Machine Tools. The emphasis of this course in on "Computer Assisted Part Programming." The course is designed to include students who have had no exposure to computer operations, but have knowledge of machine shop operations including CNC machine tools. The MS-DOS operating system and CAD/CAM software are introduced. Students use CAD to create part drawing files and CAM to choose the machining process, assign tool parameters, define the tool path, give path verification, develop the post-processor and to transfer the CNC code to the CNC machine tool.

2 Class Hours, 2 Laboratory Hours; Prerequisite: MET 220 Programming CNC Machine Tools.

MET 234
Dynamics (2)

Motion and Displacement, Velocity and Acceleration, Kinematics of Linear and Curvilinear Motion, Dynamics of Linear and Curvilinear Motion, Energy, Impulse, and Momentum, Kinematics of Mechanisms.

1 Class Hour; 2 Laboratory Hours; Prerequisite: MET 134 Statics.

MET 235
Strength of Materials (3)

Normal, shear, bearing, thermal and torsional stresses and strains. Stress-strain curves. Shearing forces, bending moments, shearing stresses and deflection of beams. Columns and pressure vessels.

2 Class Hours, 3 Laboratory Hours; Prerequisite: MET 134 Statics.

MET 238
Mechanical Design (4)

Application of the principles of strength of materials to the design of machine elements. Design and analysis of shafts, gears, bearings, weldments, and mechanical assemblies.

3 Class Hours, 3 Laboratory Hours; Prerequisite: MET 235 Strength of Materials, and MAT 160 Applied Calculus.

MET 243W
Fluid Mechanics (3)

The study of fluid statics and dynamics. Topics include fluid forces, flow measurement, the steady flow energy equation, viscosity, laminar and turbulent flow, frictional losses, pipeline systems, introduction to turbomachinery, drag and lift. Writing Emphasis Course.

2 Class Hours, 3 Laboratory Hours; Prerequisite: MET 134 Statics.

MET 244
Thermodynamics (3)

A study of the property and energy relationships in non-flow and steady flow applications. Topics include ideal gas relationships, real working substances, the first and second law of thermodynamics, thermodynamic cycles, and available energy. The cycle concept is applied to steam power, internal combustion engines, gas turbines, refrigeration and heat pumps. Consideration is also given to combustion analysis and heat transfer.

2 Class Hours, 3 Laboratory Hours; Corequisite: PHY 162 Physics II and MAT 160 Applied Calculus.

MET 246
Refrigeration and Air Conditioning (3)

Review of selected topics in thermodynamics, fluid mechanics and heat transfer. Analysis of the mechanical refrigeration cycle and psychometric process. Determination of heating and cooling loads. Introduction to the design of air handling systems and the selection of heating and cooling equipment.

3 Class Hours; Prerequisite: PHY 161 Physics I.

MET 252
Engineering Materials (4)

Atomic bonding, crystalline and noncrystalline materials including metals, ceramics, polymers, and semiconductors. Phase equilibria, microstructures, and strengthening and toughening mechanisms.

3 Class Hours, 3 Laboratory Hours; Prerequisites: MET 235 Strength of Materials and MET 121 Manufacturing Processes I.

MET 253[IS]
Engineering Materials (3)

Atomic bonding, crystalline and noncrystalline materials including metals, ceramics, polymers, and semiconductors. Phase equilibria, microstructures, and strengthening and toughening mechanisms.

2 Class Hours, 2 Laboratory Hours; Prerequisites: MET 121 Manufacturing Processes I or Second Year Student.

MET 263
Engineering Statistics and Quality Control (2)

Introduces measures of the central tendency and dispersion of data. Relates the theories of statics and probability to the industrial techniques of control charting and acceptance sampling. Emphasizes the concepts of accuracy, precision, and repeatability in engineering measurement. Topics include normal, hypergeometric, binomial, and Poisson distributions; control charts for mean, range, fraction defective, etc., single and multiple sampling; specifications tolerances, and measurement.

1 Class Hour, 2 Laboratory Hours; Prerequisite: MAT 150 College Technical Mathematics or MAT 098 Applications of Algebra and Trigonometry.

MET 264
Statistical Quality Assurance (2)

Introduces measures of the central tendency and dispersion of data. Relates the theories of statics and probability to the industrial techniques of control charting and acceptance sampling. Emphasizes the concepts of accuracy, precision, and repeatability in engineering measurement. Topics include normal, hypergeometric, binomial, and Poisson distributions; control charts for mean, range, fraction defective, etc., single and multiple sampling; specifications tolerances, and measurement.

1 Class Hour, 3 Laboratory Hours; Prerequisite: MAT 150 College Technical Mathematics. This course to be used within the Mechanical Engineering Technology program.

MET 285
Time, Motion and Wage Study (3)

Analysis of time spent and methods used for industrial tasks. Relations to wage structure on individual and plant-wide basis.

3 Class Hours; Prerequisite: MAT 098 Applications of Algebra with Trigonometry II.

MET 286
Production Control (3)

Planning, scheduling and routing of goods through a plant from raw materials to finished products. Production control principles, the control of manufacturing processes.

3 Class Hours; Prerequisite: MAT 098 Applications of Algebra with Trigonometry II.

MET 287
Plant Layout and Materials Handling (3)

Plant arrangement as it influences industrial operations. Assembling data, coordinating operations, developing operational layouts, evaluative arrangements. Materials handling requirements, planning and evaluation.

3 Class Hours; Prerequisite: MAT 098 Applications of Algebra with Trigonometry II.

MET 295
Seminar (1-3)

An opportunity for the interested students to become involved with the process of research, formal paper preparation, formal delivery and defense of ideas presented. Also a critical evaluation of ideas set forth by others.

Prerequisite: As established by the Department Chairperson.

MET 299
Independent Study (2-4)

The student undertakes an independent project in his specialty under the guidance of a faculty member. Only one independent study course allowed per semester. Consideration may be given a project involving a work assignment.

Prerequisite: Approval of Department Chairperson.

MEDICAL LABORATORY TECHNOLOGY

MLT 110
Introduction to Medical Laboratory Technology (1)

Overview of medicine and the field of Medical Technology. Designed to acquaint the student with the clinical laboratory and with the professional role of laboratory personnel within health care delivery systems. Review of safety issues connected with the clinical laboratory. Introduction to values, ethics, and interpersonal communication in these settings.

5 Weeks: 3 Class Hours.

MLT 120
Medical Laboratory Techniques and Practices (2)

Introduction to basic skills and equipment used in the clinical laboratory. Orientation to elements of quality control, laboratory mathematics, clinical assay techniques, safety, and collection and handling of specimens for laboratory analysis.

10 Weeks: 3 Class Hours; Prerequisite: MLT 110 or approval of MLT advisor.

MLT 201
Hematology and Coagulation (3)

Comprehensive study of the hematopoietic systems and the normal physiology and classic pathology of both systems. Emphasis is on the mechanics and interpretation of routine and special test procedures.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.
[IS] Industry specific

3 Class Hours, 4 Laboratory Hours; Prerequisite: BIO 131 and approval of the MLT advisor.

MLT 202
Urinalysis/Body Fluids (1)

Study of the physiologic processes which result in the formation of urine and body fluids. Emphasis on the analysis of fluids and interpretation of test results.

.75 Class Hours, .75 Laboratory Hours; Prerequisite: BIO 131 and approval of the MLT advisor.

MLT 204
Fundamental Phlebotomy (1)

Training and experience in the practice of phlebotomy, teaching students to recognize and use blood collection equipment, practice universal precautions, and perform procedures of routine venipuncture and skin puncture.

5 Weeks: 3 Class Hours; Prerequisite: Approval of the MLT advisor.

MLT 205
Immunology (3)

Study of mechanisms of immune response, including discussions of humoral and cell-mediated immunity, complement, phagocytosis, and the interaction of all systems. Immunodeficiency, autoimmunity, immune proliferation, and immunopathology examined in relation and contrast to normal immune function.

2 Weeks: 4 Class Hours, 2 Laboratory Hours per day; Prerequisite: BIO 132 and permission of MLT advisor.

MLT 206
Immunohematology (3)

Introduction to the field of blood banking. Theoretical knowledge of blood groups and blood grouping, component and transfusion therapies, transfusion reactions, and allo- and auto-antibody formation. In laboratory sessions, the student performs ABO and Rh grouping, antibody identification, and compatibility testing.

2 Weeks: 4 Class Hours, 2 Laboratory Hours per day; Prerequisite: MLT 205 or permission of MLT advisor.

MLT 207
Clinical Chemistry (5)

Designed to cover principles and analytical methods of clinical chemistry as performed in the medical laboratory. The relationship of physiochemical measurements of body function in health and disease including the renal, liver, digestive, and respiratory systems. Emphasis on those clinical tests which evaluate the function of these systems related to metabolism, protein synthesis, pH, blood gases, electrolyte balance, enzymes, and hormones. Laboratory work includes the theory, operation and maintenance of the specialized and semi- and fully automated analytical instrumentation used to perform these tests.

3 Class Hours, 6 Laboratory Hours; Prerequisite: BIO 132, CHM 146 and permission of MLT advisor.

MLT 208
Pathogenic Microbiology (3)

An introduction to microorganisms of importance in human health and disease. Topics include the morphology, isolation, and identification of pathogens, the interrelationships of microorganisms and human hosts, and the prevention and control of infectious diseases. Emphasis on bacteriology; includes survey of mycology, parasitology, and virology.

3 Class Hours; Prerequisite: BIO 131; Corequisite: MLT 209 or MLT 210.

MLT 209
Pathogenic Microbiology Laboratory (1)

Overview of basic clinical microbiology techniques, including collection and processing of clinical specimens, media used for isolation and identification of organisms common to human flora, aseptic techniques, staining procedures, susceptibility testing, and isolation techniques. Course also includes lecture unit on immunology, including humoral and cell-mediated immunity, complement, and serological testing.

3 Laboratory Hours; Corequisite: MLT 208.

MLT 210
Diagnostic Microbiology Laboratory (2)

Comprehensive study of diagnostic methods for identification of normal and pathogenic microorganisms from clinical materials by appropriate laboratory techniques. Emphasis on cultural, microscopic and biochemical characteristics, collecting and processing of clinical specimens, diagnostic tests, and susceptibility tests.

6 Laboratory Hours.

MLT 214
Specialized Phlebotomy (2)

Advanced techniques in collecting venous blood and capillary blood specimens. Topics include anatomy and physiology as related to specimen collection; properties of arterial blood versus venous blood; specialized collection equipment; specialized collection techniques; requisitioning, specimen transport and specimen processing, and quality assurance. Competency required in the performance of routine venipuncture and micro-blood drawing techniques.

10 Weeks: 3 Class Hours; Prerequisite: MLT 204 or permission of MLT advisor.

MLT 215
Phlebotomy Practicum (5)

Application of phlebotomy techniques in a clinical laboratory setting or health care environment. Focus on safety, quality control, communication, interpersonal skills, and ethical considerations relating to patients. This course will provide 160 hours of clinical phlebotomy experience in the affiliate clinical agencies.

160 Laboratory Hours; Prerequisite: MLT 214 and permission of MLT advisor.

MLT 240
Clinical Affiliation I (5)

Performance of procedures in clinical chemistry, immunology-serology, and immunohematology in an affiliated medical laboratory under direct supervision of medical laboratory personnel. Students will conduct routine analytical procedures, develop their laboratory skills, and apply knowledge gained in the program. Emphasis is on specimen collection and processing quality control, preventative maintenance, laboratory safety, and significance of abnormal results.

5 Weeks: 40 Hours per Week; Prerequisite: MLT 205, MLT 206, MLT 207 and permission of the MLT advisor.

MLT 241
Clinical Affiliation II (4)

Performance of procedures in urinalysis, body fluid analysis, phlebotomy, hematology, and coagulation in an affiliated medical laboratory under direct supervision of medical laboratory personnel. Students will conduct routine analytical procedures, develop their laboratory skills, and apply knowledge gained in the program. Emphasis is on specimen collection and processing, quality control, preventative maintenance, laboratory safety, and significance of abnormal results.

4 Weeks: 40 Hours per Week; Prerequisite: MLT 201, MLT 202, MLT 204 and permission of the MLT advisor.

MLT 242
Clinical Affiliation III (2)

Performance of procedures in microbiology in an affiliated medical laboratory under direct supervision of medical laboratory personnel. Students will conduct routine analytical procedures, develop their laboratory skills, and apply knowledge gained in the program. Emphasis is on specimen collection and processing, quality control, preventative maintenance, laboratory safety, and significance of abnormal results.

2 Weeks: 40 Hours per Week; Prerequisite: MLT 208, MLT 210, and permission of the MLT advisor.

MLT 295
Senior Seminar (1)

Review of knowledge base, didactic theory and clinical laboratory skill applicable to the medical laboratory. Preparation of professional portfolio and practice for certification exams.

Prerequisite: MLT student in final semester.

MLT 298
Special Topics (1-2)

Special courses covering topics in Medical Technology which are not available within and are beyond the scope of the usual course offerings.

Prerequisite: Departmental approval.

MLT 299
Independent Study (1-4)

Individual student project in an MLT specialty, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisite: Departmental approval.

MANUFACTURING RESOURCE MANAGEMENT

MRP 110
Principles of Materials Management (4)

An introduction to materials management in the modern manufacturing environment. Emphasis on understanding the planning, directing, and controlling of materials moving into, through, and out of the company. A basis for further study, especially for those interested in certification.

4 Lecture Hours

MRP 155
Advanced Purchasing (4)

An advanced level overview of procurement and materials management fundamentals. Greater focus on the operational aspects of the procurement function. Topics include buying decisions and plans, cost analysis, purchase agreements, purchasing analysis of capital equipment, services, institutional and government purchases, purchasing's growing role in new product development and ethical standards. Case studies will be reviewed to emphasize the procurement concepts.

3 Hours Lecture per week; 3 Semester Credits; Prerequisite: BUS 154 Purchasing.

MRP 195
Manufacturing Resources Management I

An in-depth and intensive study of the planning and organization of manufacturing resources. Topics include strategic business planning, demand planning, production and resource requirements planning, master schedule planning and organization, materials requirements planning, and capacity requirements planning. Designed to help prepare students seeking APICS certification.

4 Hours Lecture per week; 4 Semester Credits.

MRP 295
Manufacturing Resources Management II (4)

An in-depth and intensive study of the direction and control of management resources, as well as the implementation of existing and emerging systems and technologies. Includes study of Production Activity Control, Just in Time manufacturing techniques, and the implementation of existing and emerging systems and technologies. Designed to help prepare those seeking APICS certification.

4 Hours Lecture per week; 4 Semester Credits.

MRP 296 (4)
C.P.M. – A.P.P. Certification Directed Study

This course is designed to provide an in-depth coverage of the purchasing topics covered by the C.P.M. exam Modules 1, 2, 3, and 4 as sponsored by the National Association of Purchasing Management (NAPM). The course provides an overview of the certification process, covers the purchasing topics listed below and will conclude with sample CPM exam questions and review.

4 Hours Lecture per week; 4 Semester Credits; Prerequisites: MRP 154 Purchasing; MRP 255 Advanced Purchasing

MUSIC

MUS 101
Introduction to Music (3)

A survey course examining the music of the great composers representing each major period of Music History. How to listen to different forms of music such as symphonies, concertos, opera and jazz will be included in the topics covered. Emphasis on developing listening skills to bring the student to an informed awareness and understanding of great music.

3 Class Hours

MUS 105
Music Theory I

A beginning course in music theory, including the rudiments of music, harmonic analysis including inversions through the dominant seventh chord, passing tones and part writing in root position of all diatonic triads excluding the diminished chord.

MUS 106
Music Theory II

Continuation of Music Theory I including part writing of all diatonic chords in first and second inversion, harmonic analysis of all non harmonic tones including inversions of the dominant seventh chord and transposition and scoring for brass instruments.

MUS 107
Music Theory III

Continuation of Music Theory II including writing and analysis of the dominant seventh chord, the diminished seventh chord, applied dominants, chromatic third relationships, modulation to related and foreign keys, mode mixture, Neopolitan 6th chord, Augmented Sixth chords, analysis of form including Sonata Form, Rondo, Theme and Variations and an introduction to Species Counterpoint.

MUS 108
History of Music: Renaissance to 1800 (3)

Students will develop an understanding of music from the Middle Ages through 1800 A.D. Active listening and discussion of the important historical and cultural influences and the development of music during the Medieval, Renaissance, Baroque and Classical Periods will be examined.

3 Class Hours

MUS 109
Ragtime to Rock: American Popular Music (3)

A survey of American popular music including folk songs, musical theater, jazz, country, rock, and bluegrass. This course will familiarize the student with popular music which helped shape the American culture and reflect important social, historical and political events.

3 Class Hours

MUS 111
19th Century Music (3)

Important musicians and musical styles of the Romantic Period. Emphasis on developments in piano literature, the symphony orchestra and opera. Listening to selected recordings and attendance at local concerts.

3 Class Hours; Prerequisite: MUS 101 - Introduction to Music or permission of the instructor.

MUS 112
20th Century Music (3)

Important musicians and musical styles of the 20th century. Emphasis on the trends and development of music in America. Leading European composers.

3 Class Hours; Prerequisite: MUS 101 Introduction to Music or consent of instructor.

MUS 114
History of Opera (3)

A survey of the various styles of opera from the 17th through the 20th centuries. Emphasis on the works of master composers — Monteverdi, Mozart, Verdi and Wagner; impact of opera on music history; social and cultural contents of opera.

3 Class Hours; Prerequisite: MUS 101 or permission of instructor.

MUS 115
Ear Training I (1)

Aural training in melodic dictation and sight singing in two clefs. Also discrimination of intervals needed to sight read music.

2 Studio Hours

MUS 116
Ear Training II (1)

A continuation of MUS 115 - Ear Training I. Emphasizes dictation in two parts in various clefs and further develops interval and rhythmic discrimination.

2 Studio Hours; Prerequisite: MUS 115 - Ear Training I.

MUS 117
Ear Training III (1)

A continuation of MUS 116 - Ear Training II. Will stress the development of dictation in three parts, modulation, and sightsinging.

2 Studio Hours; Prerequisite: MUS 116 - Ear Training II.

MUS 120
Piano Class I (1)

Group piano lessons are given which will allow students the opportunity to develop basic piano skills and develop proper technique on the instrument.

2 Laboratory Hours

MUS 121
Piano Class II (1)

This course is a continuation of Piano Class I and further develops the necessary piano skills required to perform elementary to intermediate piano literature.

2 Laboratory Hours; Prerequisite: MUS 120 Piano Class I.

MUS 180
Jazz Improvisation (2)

Basic concepts of soloing in the jazz idiom for instrumentalists. Teach students to interpret chord symbols and understand the sounds that they represent in a meaningful way to create a jazz solo with their instrument. Attendance at jazz concerts required.

1 Class Hour, 3 Studio Hours, 2 Lecture Hours; Prerequisite: MUS 105 Music Theory I or permission of instructor; May be repeated for credit once.

MUS 185
Beginning Guitar (1)

Emphasis on Music Fundamentals, scales, chords, reading rhythms and learning to accompany singers. Students must own their own instruments.

2 Studio Hours

MUS 186
Guitar Ensemble (1)

Provide students the opportunity to perform music for the guitar in a group setting. Emphasis will be on group and individual playing. The music played will be chosen with respect to the historical literature available.

2 Studio Hours; May be repeated for credit 3 times.

MUS 187
The Guitar: Its History and Music (3)

The development of the physical and musical history of the instrument is presented through live performances and recordings. The history of the guitar and its importance relative to composers and performers throughout music history will be identified.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

3 Class Hours

MUS 188

Practical Music Theory for the Performing Musician (3)

Designed to help the novice performer of music understand key signatures, scales, rhythms, chords, form intervals, transposition, notation and sight reading. Emphasis on fundamentals of music and practical application of what is learned.

3 Class Hours

MUS 190

The College Choir (1)

Students who sing in the College Choir receive one credit per semester.

3 Studio Hours (May be repeated 3 times for credit.)

MUS 191

Music Performance (1)

Students who participate in the recitals or concerts of the academically associated Broome Community College Music Performance groups receive one credit per semester.

May be repeated 3 times for credit.

MUS 192

Woodwind Ensemble (1)

May be repeated 3 times.

MUS 193

Brass Ensemble (1)

May be repeated 3 times.

MUS 194

Voice Class I (1)

Provides any student the opportunity to learn correct vocal production, breath control, diction, articulation and musical interpretation of art songs. Emphasis is on tonal production and group and individual singing.

2 Studio Hours

MUS 195

Jazz Ensemble (1)

By audition only.

May be repeated 3 times.

MUS 196

String Ensemble (1)

(Not for guitarist.)

May be repeated 3 times.

MUS 197

Applied Music I (1)

For students in their first semester. To enable instrumental and vocal students to study privately with a teacher and develop their musical performance abilities. Not a course for beginners. A minimum of 15 lessons required per semester. Cost of lessons not included in BCC tuition.

2 Studio Hours

MUS 198

Applied Music II (1)

Continuation of MUS 197 Applied Music I, for second semester students. A minimum of 15 lessons required per semester and continued musical growth and maturity in solo and ensemble performance is expected. Cost of lessons not included in BCC tuition.

2 Studio Hours; Prerequisite: MUS 197 Applied Music I.

MUS 199

Intermediate Guitar (1)

Continuation of beginning guitar. Emphasis on picking techniques, fingerings, chords, music readings and performance. There will also be a greater emphasis on technique.

2 Studio Hours; Prerequisite: MUS 185 Beginning Guitar.

MUS 201

College Band (1)

College band is required of all woodwind, brass and percussion majors and open to the campus community. The band performs two major concerts during the year as well as providing music for various college functions. Membership is by audition. May be repeated three times.

3 Studio Hours

MUS 294

Voice Class II (1)

Continuation of Voice Class I and for students who have performed in high school musicals, chorus and/or those who have studied privately. This is a group situation in which vocal literature appropriate to individual and group singing will be sung.

2 Studio Hours; Prerequisite: MUS 194 Voice Class I or permission of instructor.

MUS 297

Applied Music III (1)

Continuation of MUS 198 Applied Music II, for third semester students.

2 Studio Hours; Prerequisite: MUS 198 Applied Music II.

MUS 298

Applied Music IV (1)

Continuation of MUS 197 Applied Music III, for fourth semester students.

2 Studio Hours; Prerequisite: MUS 297 Applied Music III.

MUS 299

Independent Study: Music (1-3)

An individual student project concerned with advanced work in a specific area of music. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 semester hours of college level work in music.

OVERSEAS PROGRAMS SEE "SAP."

PHYSICAL EDUCATION

PED 100

Archery (1/2)

Fundamentals of shooting — seven-step approach. Proper target shooting technique and form stressed.

4 Class Hours, 11 Laboratory Hours per semester.

PED 103

Backpacking (1)

A series of laboratories and lectures culminating in a four-day mandatory backpacking trip. Students learn to select, care for, and properly use the essential equipment, as well as some low-cost alternatives to expensive items. The stress is on safety and low ecological impact camping.

15 Class Hours, 15 Laboratory Hours per half semester.

PED 106

Badminton (1/2)

Instruction and practice in the various strokes. Rules, terminology and equipment. Strategy for singles and doubles.

4 Class Hours, 11 Laboratory Hours per half semester.

PED 107

Ballet I (1)

Beginning Ballet will introduce students to the basic elements of classical ballet in ballet technique classes.

8 Class Hours, 22 Laboratory Hours.

PED 112

Bowling (1/2)

Bowling fundamentals including ball selection, grip, stance, approach and delivery. Etiquette, scoring, correction of basic mistakes in delivery. Classes are at off-campus site and students must pay for own games, shoe rental and transportation.

3 Class Hours, 12 Laboratory Hours per half semester.

PED 118

Personal Fitness (1)

Individualized physical fitness program. Students identify their personal fitness profiles then participate in an exercise program designed to improve or maintain their fitness levels.

8 Class Hours, 22 Laboratory Hours.

PED 119

Personal Fitness (1-1/2)

Individualized physical fitness program. Students identify their personal fitness profiles, then participate in an exercise program designed to improve or maintain their fitness levels.

12 Class Hours, 33 Laboratory Hours.

PED 121

Golf (1/2)

Basic skills, etiquette and strategy. Student required to play nine holes and hit at a driving range, providing their own transportation and fees. Clubs provided for those without. For the beginning golfer.

4 Class Hours, 11 Laboratory Hours per half semester.

PED 122

Horsemanship (1)

Basics of grooming, saddling and safety procedures. Development and expansion of riding skills. Elementary knowledge of horses, their care and maintenance.Two options available: 1. English. 2. Western. (Additional fee and taught off campus.)

8 Class Hours, 22 Laboratory Hours per semester.

PED 127

Jogging (1/2)

Jogging as a possible leisure time activity. Physiological benefits, improvement of technique and basic principles of training. Individual works at own level and sets own goals. Distance usually worked: 2 miles.

3 Class Hours, 12 Laboratory Hours per semester.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

PED 130

Karate (1)

Classical karate on the beginning and intermediate levels. Philosophy and brief history of karate. Basic kata (forms) together with self-defense and prearranged sparring techniques. Free sparring with no body contact. Emphasis is on physical conditioning and mental discipline.

8 Class Hours, 22 Laboratory Hours per semester.

PED 135

Jazz Dance I (1)

Jazz dance technique through practical skill work, jazz styles and dance combinations.

8 Class Hours, 22 Laboratory Hours per semester.

PED 137

Jazz Dance II (1)

A continuation of Jazz Dance I, emphasizing jazz dance techniques throught practical skill work.

8 Class Hours, 22 Laboratory Hours per semester; Prerequisite: PED 135 or previous dance experience.

PED 139

Self-Defense (1/2)

Brief explanation of karate, judo and other martial arts. Approximately 10 basic self-defense movements which, if properly acquired and practiced, can be applicable to many situations. Basic techniques of blocking, falling, punching and general body shifting motions. No definite dress required. A student should remember that exercises are meant to increase flexibility and endurance of muscles, and the dress should be a comfortable one for this purpose. Although this is not the formal karate class, the class will be conducted with formality and discipline.

3 Class Hours, 12 Laboratory Hours per semester.

PED 143

Cross-Country Skiing (1/2)

Instruction and practice in cross-country skiing — beginning through advanced. conduct, terminology, safety and equipment. Classes both on and off campus. Skis, poles, bindings provided; students responsible for boots and transportation.

3 Class Hours, 12 Laboratory Hours per semester.

PED 144

Aerobics (11/2)

A low impact, high energy cardiovascular program done with a music background. Floor aerobics, step aerobics, body toning, and resistance bands included. Open to both men and women.

12 Class Hours; 33 Laboratory Hours.

PED 146

Aerobics (1)

A low impact, high energy cardiovascular program done with a music background. Floor aerobics, step aerobics, body toning, and resistance bands included. Open to both men and women.

8 Class Hours, 22 Laboratory Hours per semester.

PED 147

Soccer (Women) (1/2)

PED 148

Soccer (Men) (1/2)

Instruction and practice in the fundamental skills of kicking, tackling, trapping, dribbling and heading. Rules and tactics. Team competition. Separate sections for men and women.

4 Class Hours, 11 Laboratory Hours per half semester.

PED 149

Snorkeling (1)

Designed to teach the swimmer the techniques of snorkeling, safety equipment selection and skills. Offered to student taking Tropical Ecology during intersession.

8 Class Hours, 22 Laboratory Hours per semester.

PED 150

Personal Nutrition (1)

Students will learn the basic principals of good nutrition; how energy nutrients work within their body and how they can use nutrition to improve their overall health. They will also be able to utilize this information to decipher the current nutrition recommendations being addressed in the media.

15 Class Hours

PED 155

Trim and Tone (2)

A course designed for people seriously interested and committed to changing their body composition. This class requires daily attendance for activity and instruction on weight loss, diet, nutrition, muscle strength, and toning. Workout clothing including sweat suits or shorts and T-shirt are required as well as a good pair of gym shoes.

1 lecture, 4 Laboratory Hours.

PED 169

Tennis (1/2)

Instruction and practice in the basic strokes — forehand, backhand, serve and volley. Rules, terminology and equipment. Strategy for singles and doubles.

4 Class Hours, 11 Laboratory Hours per half semester.

PED 170

Trail Riding (1/2)

Basics of grooming, saddling, and safety procedures. Development and expansion of riding skills — learning to cope with natural hazards like creeks, traffic, terrain. Elementary knowledge of horses, their care and maintenance. (Taught off campus and an additional fee is required.)

4 Class Hours, 11 Laboratory Hours per half semester.

PED 171

Physiology of Exercise (1)

Effect of exercise on cardiovascular and respiratory systems. Components of fitness, principles of training along with training prescriptions. Energy supply systems discussed. Effective nutrition, ergogenic aids and environmental factors.

15 Class Hours

PED 172

Volleyball (1/2)

A basic course in the fundamentals of power volleyball. Team strategy, history and rules. Drills and competitive play.

4 Class Hours, 12 Laboratory Hours per half semester.

PED 173

Fitness Walking (1-1/2)

Fitness Walking is a safe form of aerobic exercise which can be incorporated into one's life style and individual fitness program. Proper shoes and foul weather gear is needed.

9 Class Hours, 36 Laboratory Hours.

PED 175

Weight Training (1/2)

Introduction to the Universal Gym and free weights as a means of physical conditioning. Components of fitness and principles of training discussed. Several strength building prescriptions presented, including free weights.

3 Class Hours, 12 Laboratory Hours per half semester.

PED 299

Independent Study (1/2 or 1)

Student undertakes a project of own choice with guidance from faculty member.The project is intended for a student who has completed requirements.

Prerequisite: 2 Semester Hours in Physical Education.

PHILOSOPHY

PHI 102

General Philosophy (3)

This course introduces Philosophy by examining some of its major areas, including Metaphysics (theories concerning the nature of reality), Epistemology (theories concerning the nature of human knowledge). Ethics (theories of morality) and Logic.

3 Class Hours

PHI 104

Philosophy of Religion (3)

Relation of religion and philosophy and an investigation of different concepts of God. Analysis of religions types and experiences, different attempts to justify religious beliefs. Investigation of the logic of religious experience through an analysis of the leading ideas in the philosophy of religion both as an historical and contemporary phenomenon.

3 Class Hours

PHI 111

Western Humanities I (3)

Critical analysis of western culture through a thematic investigation of literature, philosophy, music, and the arts as found in the ancient Near East, classical Greece and Rome, and Medieval Europe.

3 Class Hours

PHI 112

Western Humanities II (3)

Critical analysis of western culture through a thematic investigation of literature, philosophy, music and the arts as found in the Renaissance, early modern and 19th-20th centuries Europe.

3 Class Hours

PHI 120

Verbal Reasoning (3)

To improve the student's ability in reasoning. Concentration on qualifications, symbols, ambiguity, analysis and semantics.

3 Class Hours

PHI 201

Ethics: Moral Philosophy (3)

Main classical and modern ethical theories, including such theorists as Plato, Aristotle, Mill, Kant, Moore. Comparison and contrast of normative and meta-ethical theories, the good life and how one should act, the meaning of moral judgments and the criteria of validity, justification of moral beliefs and the ground of moral responsibility.

3 Class Hours

PHI 202

Logic (3)

Analysis and practical application of the elements of logic as they apply to thinking on both a linguistic and formal level. Forms of argument, informal and formal fallacies, significance of the emotions on decision making, inductive and deductive processes. Symbolizing arguments and formal proofs of validity.

3 Class Hours; Prerequisite: Any Philosophy (PHI) course or MAT 136.

PHI 203

Issues in American Education (3)

Educational problems which can be illuminated through having philosophical perspectives: educational aims, conceptions of learning, nature of knowledge, ethics of teaching, theories of moral education, school and society, equal educational opportunity, freedom and authority, and curriculum. Philosophical background to educational policy issues of special interest to prospective teachers, but also to individuals (citizens) concerned about public schools.

3 Class Hours

PHI 206

Social and Political Philosophy (3)

A philosophical study of the social/political organization of society through an examination of such topics as justice, authority, leadership, individual rights, and of the relationship between the state and various social institutions, such as family, business, church, and education.

3 Class Hours

PHI 299

Independent Study: Philosophy (1-3)

An individual student project concerned with advanced work in a specific area of philosophy. Conducted under the direction of a faculty member, the independent study is concerned with material beyond the scope and depth of ordinary course.

Prerequisite: 3 semester hours of college level work in philosophy.

PHYSICAL SCIENCE

PHS 110

Physical Science for Information Management (3)

Physical principles related to the recording, storage, and retrieval of information. Paper, magnetic, electrical, optical, anmd photograpohic media are explored. Methods of physics and chemistry are applied to determine the longevity of record storage and retrieval possibilities in the event of a disaster. Does not meet science requirement for LAAA, LAAS, or BAAS degree.

2 Class Hours, 2 Laboratory Hours.

PHS 111

Earth Investigations (2)

Investigate Earth's atmosphere, its geology and its place in the solar system. Topics of study may include the ways river and glaciers change Earth through erosion and the effects of plate tectonics in causing earthquakes and volcanoes. You will discover how weather and/or geology affect our every-day lives and how we use and modify our physical surroundings. Current scientific topics may be introduced by both students and instructors. Binghamton's regional weather and geology will be emphasized. This course does not meet science requirement for LAAA, LAAS or BAAS degree.

Equivalent Load: 2 Class Hours; Corequisite: PHS 111L.

PHS 111L

Earth Investigations Lab (1)

From a variety of laboratory experiences, including a campus field trip, you will work in cooperative groups to study rocks and minerals, maps, weather data and processes which change Earth's surface to achieve a greater understanding of your physical environment.

Equivalent Load: 2 Lab Hours; Corequisite: PHS 111.

PHS 112

Investigations of the Natural World (4)

Explore the relationships between living organisms and their physical environment in this activity-based course. Study Earth's atmosphere and seasons and explore the resulting adaptations of living things, for example through photosynthesis and respiration. Investigate rocks and minerals as the building blocks of the solid Earth and cells as the basic unit of life. Biologic and earth science concepts are integrated to show the prehistoric and modern interactions among Earth's atmosphere, its rocks and minerals and its life. Students are expected to become personally involved with in-class and at-home activities and projects. Learning is accomplished by experimentation and discussion within cooperative groups; the laboratory becomes the classroom. Appropriate for Elementary Education and Early Childhood majors.

Equivalent Load: 3 Class Hours; 3 Lab Hours; 6 Integrated Class Hours.

PHS 113

Astronomy – Exploring the Universe (3)

Exploring the universe is an exciting challenge as you are led away from earth on a journey through the cosmos and back again. Starting with a look at the historical origin of the constellations and a basic knowledge of the sky, you are taken into the realm of the stars, galaxies, and the universe at large. Current theories of the birth, life, and death of stars will show you the possibilities of extraterrestrial life. Theories of the origin of the universe will give you an informed opinion of the nature of existence itself. The return trip to earth brings you a look at our solar system with the NASA provided knowledge of the planets. Come and be a non-mathematical astronomer!

Equivalent Load: 3 Class Hours; Corequisite: PHS 113L Astronomy Laboratory.

PHS 113L

Astronomy Laboratory (1)

Extensive hands-on experience is generated in this laboratory, which makes full use of the off-campus Link Planetarium and Kopernik Observatory. NASA supplied moon rock samples allow a close up view of earth's nearest neighbor.

Equivalent Load: 3 Lab Hours; Corequisite: PHS 113.

PHS 114

Meteorology: Investigating the Weather (3)

(Available in ASL mode)

Does Binghamton have some of the worst weather in the nation? Is severe weather getting worse? How accurate are the weather forecasts? If you have ever wondered about these questions and others, this course will help you find these answers. This introductory course intends to educate you on the fundamentals of the Earth's atmosphere, weather and climate. Topics including: the atmosphere and its energy transformations, the seasons, atmospheric optics, water vapor, precipitation, and the wind are woven together to enable you to understand how weather works and what constitutes severe weather. Other topics of study might include El Nino, ozone depletion and global warming. You will participate in the act of doing science by investigating a weather topic. After taking this course, you should have a better understanding of the science of meteorology, how science progresses, and why Binghamton has such cloudy weather.

Equivalent Load: 3 Class Hours; Corequisite: PHS 114L.

PHS 114L

Meteorology (1)

(Available in ASL mode)

From a variety of lab experiences and a field trip, you will work in learning communities to gain an understanding of how meteorologists collect and analyze weather data to create maps and charts that aid in weather prediction.

Equivalent Load: 3 Lab Hours; Corequisite: PHS 114.

PHS 115

The Dynamic Earth (3)

Why does Binghamton have such steep hills and flat valleys? Why do we find such a great variety of rocks in our backyard? Why doesn't Binghamton have more earthquakes or volcanoes? If you have ever wondered about these questions and others like them, this course will help you to discover the answers to them. This course will show you how geologists collect information, analyze and interpret observations. You will begin by learning how to tell the differences between rocks and minerals and what those differences mean to our region. After studying this, you will study local examples of streams, the effects of glaciers, volcanoes, earthquakes and why mountains and oceans form. Other topics may be substituted in appropriate parts of the course depending on exciting developments on our dynamic planet. Ultimately, you will gain working knowledge of the geologic wonders that surround you at home and when you travel.

Equivalent Load: 3 Class Hours; Corequisite: PHS 115L.

PHS 115L

The Dynamic Earth Lab (1)

A series of labs conducted by students in learning communities will allow you to gain a hands-on understanding of geologic concepts and processes, while several field trips will allow you to better understand your local geologic environment.

Equivalent Load: 3 Lab Hours; Corequisite: PHS 115.

PHS 116

Energy and the Environment (3)

How does the way we use energy affect the world around us? How much energy does it take to drive our cars or light our homes? How can we save energy and will saving energy make a difference? Learn about the environmental threats, including global warming, ozone depletion, and acid rain. Discover positive things we can do as a society and as individuals to help. Investigate the sources of the energy we use everyday. Energy sources include: fossil fuels, nuclear, and alternative sources such as solar, wind, hydropower and geothermal energy. Current scientific topics may be introduced by both students and instructors.

Equivalent Load: 3 Class Hours; Corequisite: PHS 116L.

PHS 116L

Energy and the Environment Laboratory (1)

This course is integrated with PHS 116. This laboratory experience will include hands-on exercises, field trips and an analysis of your own energy use.

Equivalent Load: 3 Lab Hours; Corequisite: PHS 116.

PHS 117

Exploring Everyday Phenomena (4)

This course uses activities that engage the students in hands-on learning of common physical concepts by experimentation. The course will improve students' perspectives and comfort with science while promoting scientific literacy. There will be no distinction between lab and lecture since the activities are an integral part of the teaching and learning process in the course. The methods and ideas of the course will usually be based on the use of commonly available materials. Group-based activities include observations and measurements of size perspective, solids, liquids, gases, heat, simple machines, magnets, static electricity and electrical devices. Appropriate for Elementary Education and Early Childhood majors.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

Equivalent Load: 3 Class Hours; 3 Lab Hours; 6 Integrated Class Hours.

PHS 125

Historical Geology: The History of Life and Planet Earth (3)

Did an asteroid really cause the extinction of the dinosaurs? Where did life come from and how did it evolve? Why do I find fossils of marine organisms in my back yard? If you have ever wondered about these questions, you can discover the answers by taking this course. This course intends to give you a perspective of the enormity of the geologic history of the Earth and the life that lives on it. You will learn how scientists know how old a rock or fossil is and what the conditions in the past were like when it formed. You will also investigate how scientific thinking about the geologic past have changed with respect to the age of the Earth and what the dinosaurs were like. By looking at some bizarre groups of fossils, questions about evolution, speciation and chance will be examined. Also, a detailed study of the local geologic past will reveal that Binghamton was on the shoreline of an ancient tropical sea about 365 million years ago.

Equivalent Load: 3 Class Hours; Corequisite: PHS 125L.

PHS 125L

Historical Geology Lab (1)

Several in-lab exercises will acquaint you with the geologic and biologic principles and concepts that will then be used by you on many field trips to local sites so you can discover the geologic history of South-Central New York State.

Equivalent Load: 3 Lab Hours; Corequisite: PHS 125.

PHYSICS

PHY 090

Physics for Career Education (4)

This preparatory physics course is designed for students who have not had high school physics or need a basic introduction to physics before taking higher level physics courses. An applied academics approach is used to show how physics concepts of force, work, rate, resistance, energy, power and momentum can be integrated into the general physics areas of mechanics, heat, electricity and fluids. This unique approach to physics is further enhanced by using numerous in-class cooperative activities to strengthen the students understanding and application of these principles. The small class size ensures that students may receive focused assistance in preparing for advanced physics and other technical classes in electrical, mechanical, chemical technologies and physical therapies.

Equivalent Load: 3 Class Hours; 2 Lab Hours; Prerequisite: MAT 094.

PHY 091

Preparatory Physics II (4)

A continuation of PHY 090: The application of basic numerical, algebraic, and trigonometric procedures to the solution of physical problems using an applied academics approach. The topics examined are Momentum, Vibrations, Energy Transducers, Energy Converters, Optical Systems, Radiation, and Time Constants.

Equivalent Load: 4 Class Hours; Prerequisite: PHY 090 Physics for Career Education.

PHY 118

Physics for Physical Therapist Assistants (4)

Forces, torques, linear motion, energy, momentum, conservation laws; temperature and heat, temperature scales, heat transfer, changes of state; electric fields, potential difference; Ohm's law, DC circuits, magnetic field, electromagnetic induction, motion of charges in magnetic fields; wave motion, electromagnetic spectrum, atomic structure.

3 Class Hours, 2 Laboratory Hours; Prerequisites: MAT 094 or equivalent.

PHY 160

Applied Physics – IS (4)

This is a one-semester course in physics with emphasis on hands-on activities completed by students working in teams. General topics to be discussed include mechanics, vibrations and wave motion, light and optics, electricity and magnetism, thermodynamics and modern physics. Class activities and laboratory experiences are integrated into the class discussions. Computers will be used extensively for data analysis and presentation. Oral and written reports are required. This course may not be used as a substitute for PHY 161 or PHY 162.

PHY 161

Physics I: Mechanics and Heat (3)

Physics includes the study of matter and motion, mass and energy. It tells you how and why things move. It is important for everyone from technicians to doctors to know why something happens. Problem solving skills that you learn in physics will help you in other courses, as will the skills in laboratory observation and analysis. In Mechanics you will learn about forces and the accelerations they produce, and conservation laws for energy and momentum. In thermodynamics you will study how heat energy affects the properties of matter. This includes topics that range from how atoms bounce around on a hot day to the operation of a gasoline engine. Physics provides the underlying concepts used in technologies and in other sciences. Basic principles are applied to solve realistic problems, using algebra and elementary trigonometry. This course is designed for Liberal Arts, Computer Science, and Technology students and others who are interested in learning why things happen the way they do.

Equivalent Load: 3 Class Hours; Prerequisite: MAT 150; Corequisite: PHY 161L.

PHY 161L

Physics I Laboratory (1)

This course provides hands-on experiences covering various topics in mechanics and thermodynamics. Experiments are designed to emphasize the emperical basis for the principles covered in class. Tools and methods for gathering and interpreting experimental data will provide you with problem solving techniques, measurement skills, and applications of theory.

Equivalent Load: 3 Lab Hours; Prerequisite: MAT 150; Corequisite: PHY 161.

PHY 162

Physics II: Wave motion, Electromagnetism, and Atomic Physics (3)

This is the second course of an algebra-based sequence in physics (see PHY 161, above). Your study of sound and light will reveal them as examples of waves, and will include study of optical instruments. Electricity and magnetism introduces you to the basic properties of charges and currents, producing electric fields and magnetic fields. You will progress to understand electric energy as one essential component of our standard of living. Some selected topics in modern physics are also covered, including the study of atoms and their nuclei.

Equivalent Load: 3 Class Hours; Prerequisite: PHY 161; Corequisite: PHY 162L.

PHY 162L

Physics II Laboratory (1)

Hands-on experiences will provide you with problem solving techniques, measurement skills, and applications of theory.

Equivalent Load: 3 Lab Hours; Corequisite: PHY 162.

PHY 171

Physics for Engineers & Scientists I: ASL (4)

Note: This course uses ASL as its delivery format.

A calculus-based University Physic's course. Vectors, equilibrium, kinematics in 1-D and 2-D, Newton's Laws (Linear and Rotational Systems), work and energy, impulse and momentum, elasticity, harmonic motion, hydrostatics, DC circuits, heat and thermodynamics. Simulated laboratory experiences are included as part of this course.

Equivalent Load: 3 Class Hours; 3 Lab Hours; Prerequisite: MAT 181.

PHY 172

Physics for Engineers & Scientists II: ASL (4)

Note: This course uses ASL as its delivery format.

A calculus-based University Physic's course. Coulomb's and Gauss' Laws, electric potential and energy, capacitance, magnetic forces and torques, induced fields, self and mutual inductance, DC and AC circuits, thermodynamics, wave motion, optics, and sound. Simulated laboratory experiences are included as part of this course.

Equivalent Load: 3 Class Hours; 3 Lab Hours; Prerequisite: PHY 181 or equivalent.

PHY 181

Physics for Engineers & Scientists I: Mechanics and Thermodynamics (3)

(Available in ASL mode as PHY 171)

Engineering Physics, sometimes called "University Physics," uses calculus in the development of principles. The topics include the description of motion and the causes of motion, with the ideas of force, energy, power, and momentum; equilibrium and rotation; and heat and its effects. This course is designed for students studying engineering, computing, science, or mathematics.

Equivalent Load: 3 Class Hours; Prerequisite: MAT 181 and EGR 100; Corequisite: PHY 181L.

PHY 181L

Physics for Engineers & Scientists I: Laboratory (1)

Hands-on experiences will provide you with problem solving techniques, measurement skills, and applications of theory.

Equivalent Load: 3 Lab Hours; Corequisite: PHY 181.

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§ These courses are offered in connection with Lourdes Hospital and other off-campus participants. Additional information may be obtained from Lourdes Office of Souther Tier Paramedic at (607) 729-3271, or by calling (607) 778-5161.

◆ ASL Mode courses are available through the Internet.

PHY 182
Physics for Engineers & Scientists II: Sound, Light, Electricity and Magnetism (3)

(Available in ASL mode as PHY 172)

This continuation of PHY 181 covers the nature of sound and of light and their behavior; electric and magnetic forces and fields; electric circuits and electric energy transfer; and electromagnetic induction. This is the second semester of University Physics taught at most major Engineering schools.

Equivalent Load: 3 Class Hours; Prerequisite: PHY 181 and PHY 181L; Corequisite: MAT 182 and EGR 101.

PHY 182L
Physics for Engineers & Scientists II: Laboratory (3)

Hands-on experiences will provide you with problem solving techniques, measurement skills, and applications of theory.

Equivalent Load: 3 Lab Hours; Corequisite: PHY 182.

PHY 281
Physics for Engineers & Scientists III (4)

This elective is the third and last physics course for Engineering and Science majors. It covers Einstein's theory of relativity, quantum mechanics, atomic physics, and nuclear physics. Students majoring in Electrical Engineering, Nuclear Engineering, and Physics should consider taking this course. (This course is only offered as enrollment warrants)

Equivalent Load: 4 Class Hours; Prerequisite: PHY 182, PHY 182L, and MAT 182.

PARAMEDIC

PMD 201§
Paramedic I (18)

Instruction in medically correct initial and continuing advanced life support treatment of critically ill or injured persons using good medical judgement. Intense practical training to perform rapidly and efficiently.

Prerequisite: BIO 131 Human Biology, ENG 110, and current Basic EMT Certification; EMT 110 Basic Emergency Medical Technician and one year on-the-road practice.

PMD 202§
Paramedic II (18)

Continued instruction in providing medically correct initial and continued advanced life support treatment of critically ill or injured persons using good medical judgement. Intense practical training to perform rapidly and efficiently.

Prerequisite: PMD 201 Paramedic I.

POLITICAL SCIENCE

POS 201
Introduction to American Government (3)

American political institutions, processes and behavior. The relationships among cultural, legal and social aspects of the political system. Structure, organization and function of political parties, pressure groups and mass media. Application to contemporary issues and events. Satisfies the civic education requirement.

3 Class Hours

POS 204
American State and Local Government (3)

Theory and practice of state and local government, utilizing a problem- solving or "policy" approach. Students are encouraged to explore in depth the workings of city and county governments locally. Satisfies the civic education requirement.

3 Class Hours

POS 299
Independent Study (1-3)

An independent student project which is beyond the scope of courses currently offered by the department, directed by a faculty member with approval of the department chairperson.

Prerequisite: 3 Semester hours of political science.

PSYCHOLOGY

PSY 100
Psychology of Personal Adjustment (3)

Investigation of bio-social factors which influence human behavior with emphasis on: (1) development of physical, mental, emotional, social and spiritual well-being; (2) personal responsibility for one's lifestyle and the consequences that flow from one's choices. (This course cannot be used as a prerequisite for other psychology courses.)

3 Class Hours

PSY 110
General Psychology (3)

Definition and description of psychology. Topics may include functions of neural system, sensation and perception, learning, memory, motivation, emotion, conflict and frustration, personality, social psychology. Methods and statistical applications, history and fields of psychology.

3 Class Hours

PSY 210
Developmental Psychology (3)

Human development from infancy through childhood, adolescence, and adulthood. Intellectual growth, personal and social adjustment, the relationship between physical and mental development, and typical problems in various states of the life-cycle are considered. Especially for Nursing students.

3 Class Hours Prerequisite: PSY 110 General Psychology.

PSY 211
Child Development (3)

The growth, maturation and development of children, including mental and motor phases, learning, motivation and personality formation.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 212
Adolescent Development (3)

The developmental tasks of the adolescent years, influence of people and institutions on self-concept. Physical, psychological, intellectual effects and intellectual growth.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 214
Abnormal Psychology (3)

Survey of the normal and abnormal personality with special emphasis on certain causal factors pertaining to maladaptive behavior. A general framework for understanding abnormal behavior patterns, including common misconceptions, accepted definitions, and the classification of mental disorders.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 217
Introduction to Counseling Theory and Practice (3)

Varied methods of counseling, employing current theories, situational examples and means for determination of method to be used. Practical cases in social sciences, clinics, hospitals, and educational institutions. Overall training and personality of the counselor.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 223
Intelligence and the Mentally Retarded (3)

An introduction to the major areas of atypical social, emotional and cognitive development. Attention will be focused on the problems, etiologies and expectancies of the social and/or emotional maladjustments and the cognitive atypicalities (Learning Disabilities, Mental Retardation, Savants, etc.) Special consideration will be given to intelligence testing and the educational, social, legal and placement needs of the atypical individual.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 227
Behavior Modification (3)

A study and survey of the development and especially the application of practical approaches to behavior management and change based on modern learning theories. Special attention will be given to the application of principles of operant and classical learning to all social milieus including behavior change at home, school, rehabilitative, corrective and recreational institutions, and other social settings. Self-control techniques are also discussed.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 230
Psychology of Women (3)

A course focusing on the scientific study of female behavior, personality, and the biological, psychological and cultural determinants of women's roles in society.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 234
Psychology of Addictions (3)

An overview of the psychology and psychophysiology of the brain and addictions. Addictions to food, alchohol, sex, gambling, psychopharmaceuticals, over-the-counter medications, and street drugs are introduced. The impact of the addiction cycle on the individual, the family, and society is explored.

3 Class Hours

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

PSY 240

Psychology of Advertising (3)

Emphasizes the psychological dimensions of advertising as a basis for attracting and retaining consumer awareness of products, companies, and services. Learning, drive and motivation, and communication theories, as they pertain to the diffusion of media advertising messages, are examined and analyzed using television, radio, print, and Internet media.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 245

Social Psychology (3)

The scientific study of social influences on human behavior. Course emphasizes both the experimental and interpersonal perspectives. Topics include: social influence, attitudes, group behavior, social perception, social cognition, social exchange, aggression, and interpersonal attraction.

3 Class Hours; Prerequisite: PSY 110 General Psychology.

PSY 299

Independent Study (1-3)

An individual student project in psychology which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisites: PSY 110 General Psychology plus 3 additional hours in a 200 level PSY course.

PHYSICAL THERAPIST

PTA 100

Introduction to Physical Therapy I (4)

The history and development of medicine is outlined. The profession of physical therapy is presented with emphasis on the definition of the role and education of the physical therapist assistant. Students acquire basic knowledge of SOAP note writing, medical terminology, health care institutional organization, ethics, medical-legal aspects of patient care, and fiscal considerations involved. Interpersonal skills and professional/patient interactions are discussed.

4 Class Hours; Corequisite: BIO 131, PHY 118.

PTA 101

Introduction to Physical Therapy II (4)

This course is a continuation of PTA 100. General concepts of disease and disease processes are discussed. Diseases of selected organs are studied.

4 Class Hours; Prerequisite: PTA 100; Corequisite: BIO 132.

PTA 102

Introduction to Rehabilitation (4)

The principles of normal body alignment, body mechanics, posture, balance and movement are presented. Bed positioning, moving and lifting the dependent patient are discussed and demonstrated. Goniometrics, transfer and elevation activities, passive and self range of motion exercises are practiced. The therapeutic gymnasium, wheelchairs and assistive devices are introduced. Architectural barriers are explored. The rehabilitation of the patient with spinal cord injury, cerebrovascular accident and amputation is studied.

6 Class Hours; Prerequisites: PTA 100, BIO 131, PHY 118; Corequisites: PTA 101, 103.

PTA 103

Physical Agents and Massage (4)

Basic principles of massage and application of modalities are presented. Specific skills practiced in the laboratory include various massage techniques; use of hot and cold packs, paraffin application; use of whirlpool and contrast baths; use of ultrasound; application of microwave diathermy; use of electrical stimulation; and ultraviolet and infrared radiation therapy techniques. Principles and procedures related to the use of the Hubbard tank, therapeutic pool and intermittent compression are also discussed.

6 Class Hours; Prerequisites: PTA 100, BIO 131, PHY 118; Corequisite: PTA 101, 102.

PTA 110

Clinical Affiliation I (2)

This course constitutes the student's first clinical affiliation assignment. The student spends three to five work days in one health care facility working under the supervision of a physical therapist. The student is assigned to work with patients requiring treatments with which the student is familiar including simple modalities, simple exercise routines, ambulation and activities of daily living. The student meets with the clinical coordinator several times during the five-week period to assess progress.

90 Clinical Hours over 3-6 weeks; Prerequisites: PTA 101, 102, 103, MDA 114.

PTA 201

Kinesiology (4)

Muscle structure and function are reviewed. Normal human motion is studied. Manual Muscle Testing is studied in the laboratory. Posture and normal gait are reviewed. Pathological gait patterns are presented and analyzed.

6 Class Hours; Prerequisite: BIO 132, PHY 118, PTA 102; Corequisite: PTA 202.

PTA 202

Therapeutic Exercise (4)

The principles and techniques of therapeutic exercise are presented. Specific neurological, medical, surgical and orthopedic conditions are studied. Chest physical therapy including postural drainage is practiced.

6 Class Hours; Prerequisites: PTA 101, BIO 132, PHY 118; Corequisite: PTA 201.

PTA 210

Clinical Affiliation II (4)

This course constitutes the student's second clinical affiliation assignment. The student spends two days in one health care facility working under the supervision of a physical therapist. The student is assigned to work with patients requiring treatments with which the student is familiar including simple modalities, simple exercise routines, ambulation and activities of daily living. The student is also introduced to the patient requiring therapeutic exercise routines which are part of the student's concurrent course work. The student meets with the clinical coordinator during the fifteen-week period to assess progress.

180 Clinical Hours during 5 weeks; Prerequisite: PTA 110; Corequisite: PTA 201, 202.

PTA 213

Senior Seminar I (5)

Additional neurological, orthopedic, medical and surgical conditions are presented. Basic principles of testing and complex treatment procedures are included so that the student understands and is aware of how to assist the Physical Therapist. Additional psychosocial issues are also discussed. This course is presented in a seminar format of two to four-hour segments for the first 7 weeks of the semester.

SPECIAL CONSIDERATIONS: This course may be presented by guest lecturers and sessions may be held off campus in various health care facilities depending upon the particular topic. Significant preparation time outside of regular class hours is required.

75 Class Hours during 7 weeks; Prerequisites: PTA 201, 202, 210.

PTA 220

Clinical Affiliation III (6)

This course constitutes the student's final clinical affiliation assignment. The student works full-time in one health care facility for a period of six weeks under the supervision of a physical therapist. The student is assigned to work with all types of patients requiring treatments with which the student is familiar including all modalities, exercise routines, gait training and activities of daily living. The student meets with the clinical coordinator several times during the six-week period to assess progress.

240 Clinical Hours during 6 weeks; Prerequisites: PTA 210, 213.

PTA 224

Senior Seminar II (1)

This final course of the student's academic career is designed to allow students to integrate their theoretical knowledge and their clinical experience. Students meet in seminar format and present case studies based on their clinical experience. If time permits special topics are presented and discussed. In addition a student/teacher conference is required for each student prior to graduation. Course meets three hours per day, three days per week during final two weeks of the semester.

9 Class Hours for 2 weeks; Prerequisites: PTA 213, 220.

PTA 299

Independent Study (1- 4)

Course content covering advanced work in Physical Therapist Assistance on which the instructor and student agree. The material is beyond the scope of an ordinary course and it must be approved by the department chairperson. Conducted under the direction of a faculty member.

Prerequisite: Department approval.

RADIOLOGIC

RAD 100

Introduction to Clinical Education (4)

Overview of radiologic technology through the study of its historical development, its placement in the medical field today, the organization of a modern radiology department, professional ethics, medicolegal aspects of radiology and medical terminology.

3 Class Hours.

RAD 101

Image Production and Evaluation I (3)

Introduction to the basic principles of radiographic imaging including recording media, processing methods, radiographic quality and radiographic accessories. Lecture and laboratory are coordinated to enhance these fundamental concepts.

3 Class Hours, 1 Laboratory Hour.

RAD 102W
Image Production and Evaluation II (4)

Advanced study of the factors contributing to the radiographic image and evaluation. Writing Emphasis Course.

4 Class Hours, 1 Laboratory Hour; Prerequisite: RAD 101 Image Production and Evaluation I or permission of instructor.

RAD 103
Positioning I (2)

Instruction and practice in radiographic positioning or the appendicular skeleton.

1 Class Hour; 4 Laboratory Hours.

RAD 104
Positioning II (1)

Instruction and practice in radiographic positioning of the axial skeleton.

1 Class Hour; 2 Laboratory Hours; Prerequisite: RAD 100 Introduction to Clinical Education.

RAD 110
Methods of Patient Care (1)

Patient care procedures routinely performed in the radiology department.

1 Class Hour, 1 Laboratory Hour.

RAD 115
Radiation Protection (1)

Basic radiation protection for the student radiographer.

RAD 130
Clinical Education I (1)

Introduction and orientation to the radiology department in an affiliated hospital during the last 5 weeks of Fall semester and two 40-hour weeks during the Winter Term.

160 Clinical Hours; Prerequisites: All first semester RAD designated courses or corequisite courses and BIO 131 Human Biology.

RAD 132
Clinical Education II (2)

Observation and clinical experience for the development of competency involving elementary radiographic procedures in an affiliated hospital.

240 Clinical Hours; Prerequisite: RAD 100 Introduction to Clinical Education or permission of instructor.

RAD 133
Summer Clinical Education III (Summer Term I) (4)

Clinical experience for development of competency involving general radiographic procedures in an affiliated site.

440 Clinical Hours; Prerequisites: RAD 132 Clinical Education II and BIO 132 Human Biology II or permission of instructor.

RAD 201
Equipment Operation and Maintenance(3)

Principles and operation of radiographic imaging equipment, tube design, X-ray circuitry, mobile equipment, image intensification, and digital radiography/fluoroscopy.

3 Class Hours; Prerequisites: RAD 102 Image Production and Evaluation II.

RAD 204
Advanced Positioning (2)

Instruction and practice in positioning techniques involving the skull, facial bones,.and advanced radiographic procedures.

1 Class Hour; 2 Laboratory Hours; Prerequisite: RAD 133 Clinical Education III or permission of instructor.

RAD 214
Sectional Anatomy (1)

An introduction to cross sectional anatomy and its relationship to structures visualized in computed tomography, magnetic resonance imaging and sonography.

1 Class Hour; Prerequisite: BIO 132 Human Biology II.

RAD 216
Imaging Modalities (1)

Introduction to the principles of computerized axial tomography, nuclear medicine, magnetic resonance imaging, and ultrasound.

1 Class Hour; Prerequisite: RAD 102 Image Production and Evaluation II and CST 105 Computer Applications or permission of instructor.

RAD 220
Radiologic Pathology (2)

A presentation of the various medical and surgical diseases and their relationship to radiographic procedures.

2 Class Hours; Prerequisite: BIO 132 Human Biology II or permission of instructor.

RAD 225W
Advanced Imaging Procedures (3)

An overview of advanced imaging procedures such as: equipment, the use of computers in imaging, responsibilities of the radiographer, and the care of the patient. The use of body systems-based approach to imaging procedures. Writing Emphasis Course.

3 Class Hours; Prerequisite: RAD 230 Clinical Education IV or permission of instructor.

RAD 230
Clinical Education IV (4)

Practical application of advanced positioning techniques in an affiliating site. This will also include 40 hours/2 weeks of clinical assignment during the Winter Term.

440 Clinical Hours; Prerequisite: RAD 133 Summer Clinical Education III or permission of instructor.

RAD 232
Clinical Education V (3)

Application of advanced radiographic procedures including evening assignments in an affiliated hospital.

360 Clinical Hours; Prerequisite: RAD 230 clinical Education IV or permission of instructor.

RAD 245
Radiobiology (2)

Radiobiology and advanced radiation protection procedures related to diagnostic and therapeutic uses of radiation.

2 Class Hours; Prerequisite: RAD 201 Equipment Operation and Maintenance or permission of instructor.

RAD 250
Quality Assurance (2)

The basic principles and techniques of quality assurance testing presented and illustrated through laboratory experiments. Major emphasis on the tests and measurements used to analyze imaging systems with minimum information loss.

2 Class Hours, 1 Laboratory Hour; Prerequisite: RAD 201 Equipment Operation and Maintenance or permission of instructor.

RAD 262
Mammography (0.5-3)

Individual modules consisting of 1) patient education and assessment, 2) anatomy, physiology, and pathology of the breast, 3) positioning and image evaluation, 4) mammographic technique, and 5) instrumentation and quality assurance. Preparation for the A.A.R.T. registry examination.

3 Class Hours

RAD 264
Computed Tomography (3)

Introduction to the field of Computed Tomography for the radiographer.

3 Class Hours

RAD 266
Magnetic Resonance Imaging (3)

Magnetic resonance imaging for the radiographer.

3 Class Hours

RAD 295
Seminar in Radiography (2)

Preparation of the technical report and its organization for both written and oral presentation. Readings in current literature and journals.

2 Class Hours; Prerequisite: Senior Year Status.

RAD 295
Seminar in Radiography (2)

Preparation of the technical report and its organization for both written and oral presentation. Readings in current literature and journals.

2 Class Hours; Prerequisite: Senior Year Status.

RAD 298
Independent Clinical Study (1-2)

A one-time individual student clinical experience to be conducted under the direction of a clinical instructor and approved by the department chairperson.

RAD 299
Independent Study (1-3)

An individual student project concerned with advanced work in a specific area of radiography. Independent study is concerned with material beyond the scope and depth of courses currently offered by the department. Conducted under the direction of a faculty member.

Prerequisite: Department Chairperson approval.

READING SKILLS

RDG 090
Reading Fundamentals (0)

A non-credit course involving individual diagnosis of student's reading strengths and weaknesses, and development and implementation of program to upgrade basic skills. Content to vary with individual student.

4 Class Hours, 4 credit - equivalents.

RDG 092
College Preparatory Reading (0)

An individualized course emphasizing vocabulary expansion, inferential and critical comprehension, and flexible rate. Instruction and practice of reading skills to specific content areas.

4 Class Hours, 4 credit - equivalents.

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* Taught evenings only and when enrollment permits.
† Carries separate grades for laboratory and lecture.
‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

RDG 094

College Vocabulary Skills (0)

Designed to provide students with several methods of mastering vocabulary encountered in college courses. Students will review dictionary skills. Learn to infer meanings from context, structural analysis, and methods of studying vocabulary for examinations. In-class practice will be designed to fit students' individual needs.

2 Class Hours for 8 Weeks.

RDG 110

Efficient Reading (1)

Development of skills characteristic of the mature reader. Examination of structure of material, emphasis on identification of purpose, flexibility of rate.

2 Class Hours for 10 Weeks; Course starts at beginning of third week of semester.

RDG 120

Critical Reading (3)

Emphasis is on critical reading and thinking skills. Students will analyze and evaluate college level readings beyond the literal level. Critical thinking skills will also be applied to the mastery of content area text material.

3 Class Hours

RUSSIAN

RUS 101/102

Beginning Russian I & II (4)

Basic principles of grammar and syntax. Reading and discussion of graded literary and cultural texts.

4 Class Hours, I Laboratory Hour.

RUS 201

Intermediate Russian I (3)

Review of grammar and its application to spoken and written Russian. Reading of literary and cultural texts.

3 Class Hours

RUS 202

Intermediate Russian II (3)

Continuation of RUS 201.

3 Class Hours

STUDENT AFFAIRS COURSES

SAC 101

The Individual in a Changing Environment (3)

Individual interaction and reading designed to foster understanding and application of psychological and emotional growth within the many environments we are part of. Basic class material is the individual and group analysis of student's experience within an immediate unstructured setting. Focus on analysis and organization of experience into a personally rewarding conception of growth. Individual self-development projects outside the class.

3 Class Hours

SAC 110

Orientation for International Students (2)

An orientation course for international students designed to aid in their adjustment as students at Broome Community College. Study skills, academic regulations, the American educational system, individual educational and vocational goals, American customs. Especially intended for students during their initial semester of enrollment in conjunction with English-as-a-Second-Language course offerings, such as ESL 103, 104, 106. (This course is not acceptable for credits toward a degree.)

2 Class Hours

SAC 250

Career Exploration (3)

How to plan, establish, change a career. The process of deciding on a career and implementing career goals, assessment of values, interests and skills plus their relationship to occupations. Analysis of the labor market needs, identification of employers and sources of occupation information, the means of securing employment through proposals, resumes, applications and job interviews. Supportive small group atmosphere. Class activities include discussion, speakers, testing, and individual counseling within career development theory.

3 Class Hours

SAC 251

Career Search (1)

For people who know their interests, skills, and values but are not sure which career field or lifestyles would be most satisfying to them. Sources of occupational information, analysis of labor market needs, what colleges and college majors best prepare students for their career goals. For students who are beginning a career, changing careers, or returning to the job market. For students who scored 13-18 on My Vocational Situation. Supporting small group atmosphere. Discussion sessions, speakers, testing field work, and individual counseling.

2 Seminar Hours

SAC 295

Seminar in Human Potential (3)

Human Potential seminar centers on the person within a positive group setting while working on and with the potential of all involved. It assists persons in achieving the following: becoming more self-directed, self-motivating, self-aware, self-controlled, self-disciplined and empathetic toward others. The focus is on developing the person's own resources by utilizing specific and structured procedures.

3 Class Hours

STUDY ABROAD

SAP 115

Semester Abroad (15)

Students studying overseas for a semester are registered for this course before departure. It signifies a full semester of study rather than a particular course. Once students register abroad, SAP 115 is dropped and replaced by the actual courses enrolled in. All SAP and O__ __ designators indicate a course taken in a BCC sponsored program overseas and are assigned regular letter grades.

Prerequisites: see page 25.

SAP 171-75

Tropical Wildlife Studies (2-4)

Offered by the Biology department for non-science majors. This course is for students with an interest in wildlife, nature, and the outdoors. The course is offered in different locations aboard during the intersessions, or summer for a period of two to four weeks. Credit is variable depending upon the time spent abroad and the work involved. Recent locations have included The U.S. Virgin Islands, Kenya, Australia, and the Galapagos Islands, Ecuador. Lectures, readings, and field work concentrate on the ecology of the region.

Prerequisite: Special application necessary.

SOCIOLOGY

SOC 110

Introduction to Sociology (3)

Sociological facts and principles dealing with the scientific study of human relationships. Emphasis on analysis and study of culture and human society, socialization, groups and group structures, collective behavioral patterns and the concept of social institutions. Initial experiences for students who desire an introduction to the sociological perspective.

3 Class Hours

SOC 111

Social Problems (3)

The sociology of social and urban problems. Topics may include crime, population, inequality, discrimination, mental illness, attitudes toward work, social control and the dynamics of social change. Students should be aware that individual instructors approach these problems in different ways, depending on students' and instructors' interests. SOC 110 Introduction to Sociology is recommended as an initial experience. Satisfies the civic education requirement.

3 Class Hours

SOC 210

Crime and Deviant Behavior (3)

The theoretical aspects of deviance as crime, variations in crime rates, the social and psychological causes of crime, other deviant behavior and the salient research discoveries in these areas. Specific areas within criminology will be reviewed from a multidisciplinary approach to permit as broad an understanding of the problem as possible.

3 Class Hours; Prerequisite: SOC 110 Introduction to Sociology, SOC 111 Social Problems or instructor's permission.

SOC 230

The Family/Marriage and its Alternatives (3)

Social and personal factors which make for adequate family functioning, the forms the family takes, its internal processes and the functions it serves in society. Covers systematically the important theoretical and experimental ground on those issues relevant to both the scholarly and practice-minded student.

3 Class Hours

SOC 250

Introduction to Social Work (3)

Social work as a profession in the context of the social welfare institution; historical and philosophical roots of social work and social welfare; attributes of the social work role; social workers' knowledge base; fields of social work practice.

3 Class Hours; Prerequisites: SOC 110 Introduction to Sociology and PSY 110 General Psychology.

SOC 299

Independent Study (1-3)

An individual student project in sociology which is beyond the scope or requirements of the courses offered by the department, conducted under the direction of a faculty member and approved by the department chairperson.

Prerequisite: 3 Semester Hours in Sociology.

SOCIAL SCIENCE

SOS 111

Public Policy (3)

Contemporary political issues examined in the context of American democratic institutions, practices, and beliefs. Focus on policy issues involving energy/environment, criminal justice, education, health care, and welfare. Satisfies the civic education requirement.

3 Class Hours

SOS 116
International Business Environments (3)

An overview of the social, cultural, political, and economic factors that influence the trade related interaction of nations and the operations of global business enterprises. Trade theory, economic integration, global sourcing, export-import basics, cultural awareness, and other current topics relating to international business will be covered.

3 Class Hours - Cross-listed as BUS 116.

SOS 120
Science Technology and Democratic Society (3)

A study of the interaction of the forces of science and technology with the major institutions (i.e., govt., industry, family, education, and organized religion) of contemporary democratic society. Analysis of differing viewpoints on the role of a scientific technology with respect to key public policy issues (i.e., genetic engineering, fetal tissue research, pollution, space exploration, information management, weapons development, evolution/creationism debate, communications, etc.). Satisfies the Civic Education requirement.

3 Class Hours

SOS 143
Fatherhood (3)

Focus on the scientific study of father behavior, attitudes towards fathers, historical views, and the economic, social, cultural, and political factors and issues influencing men's roles as fathers.

3 Class Hours

SOS 155
Media and Society (3)

An in-depth examination and analysis of the impacts and effects of the mass media upon society and the converse societal influences upon the media. Includes such issues as media concentration, portrayal of violence, stereotyping, the public's right to know, among others.

Prerequisite: COM 100 or SOC 110.

SPANISH

SPA 101, 102
Beginning Spanish (4, 4)

This is a comprehension-based foundation course. Special emphasis is placed on the development of listening comprehension. Reading, writing and speaking skills emerge through practice in and out of class.

4 Class Hours; Prerequisite: SPA 101 Beginning Spanish for SPA 102.

SPA 115
Conversational Spanish for Law Enforcement (3)

This course is designed specifically for individuals who are in law enforcement. The instruction will focus on specific, oral-aural, work-related Spanish and cross-cultural studies.

SPA 116
Spanish for Business (3)

In doing business in Latin American, students learn basic Spanish phrases and questions necessary to carry out travel for business purposes. Discussions also cover 50 important cross-cultural issues pertinent to relationships between non-Hispanics business persons and Hispanics business leaders in Latin America.

SPA 201
Intermediate Spanish I (3)

First course in a cultural, conversational and literary approach to the Spanish language. Review and continuation of grammar and syntax will be emphasized through writing, reading and conversation on Spanish and Latin American literary works of recognized authors.

3 Class Hours; Prerequisite: SPA 102 Beginning Spanish.

SPA 202
Intermediate Spanish II (3)

Second course of a cultural, conversational and literary approach to Spanish language. Students will have the opportunity to discuss and analyze a wide variety of topics, while reviewing and continuing to explore the grammar and syntax of the Spanish language.

3 Class Hours; Prerequisite: SPA 201 Intermediate Spanish I.

SPA 203
Spanish in Conversation (3)

This conversational class will intensively emphasize oral practice in the classroom through a wide variety of topics.

3 Class Hours; Prerequisite: SPA 202 Intermediate Spanish II or its equivalent.

SPA 204
Spanish in Conversation and Composition through Literary Works (3)

The Spanish language in conversation and basic composition practice through the reading of various literary works. Classroom discussion and conversation based on these texts.

3 Class Hours; Prerequisite: SPA 203 Spanish in Conversation.

SPA 207
Introduction to Latin American Literature: from the "Boom" to Testimonial Narrative (3)

An introductory survey of contemporary Latin American literary production with special attention to historical and social contexts. The course will include selected readings reflecting historical developments of contemporary Latin American literature from the "Boom" to Testimonial Narrative. The selections to be read will include works by Gabriel Garcia Márquez, Elena Poniatowska, Laura Esquivel, Isabel Allende, Mario Vargas Llosa, Julio Cortázar, and Carmen Cecilia Suárez.

3 Class Hours; Prerequisite: Consultation with Foreign Language Coordinator.

SPEECH

SPK 106
English Speech Communication for Speakers of Other Languagues (3)

This course is designed for international students as a bridge between ESL 114 and SPK 110. There will be some practice in articulation, pronunciation, and vocabulary, but the emphasis of the course will be on introducing various public speaking skills and providing exercises that will help students feel comfortable using English to communicate a specific idea in front of a group.

SPK 110
Effective Speaking (3)

Speech communication through voice, words, and action. Voice production, diction, platform presence. Organization of ideas. Practice in presenting speeches of different types.

3 Class Hours

SPK 203
Advanced Speaking (3)

Designed so students can review what they have learned in SPK 110 Effective Speaking, learn advanced techniques for informative and persuasive speaking, learn techniques for special speaking occasions. Involvement in a debate as a means of perfecting research techniques, impromptu speaking skills and the processes of logical thinking and organizing.

3 Class Hours; Prerequisite: SPK 110 Effective Speaking.

SPK 299
Independent Study: Speech (1-3)

An individual student project concerned with advanced work in a specific area of speech. Conducted under the directions of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 Semester hours of college level work in Speech.

QUALITY ASSURANCE

SQC 100/200
Orientation (0)

Guest speakers discuss common problems quality assurance students encounter. Student contact with industry is established through field trips.

1 Class Hour

SQC 111
Acceptance Sampling Techniques (3)

A thorough study of acceptance sampling techniques for attributes and variables. Operating Characteristic curves, lot-by-lot acceptance plans based on LTPD, AOQL and AQL. Dodge-Romig, MIL-STD 105D, sequential probability ratio test (SPRT), sequential sampling, continuous sampling, MIL-STD 414.

3 Class Hours; Prerequisite: MAT 124 Statistics I or MAT 125 Statistics I with Computers.

SQC 112
Metrology (3)

The study of the science of measurement. This course will deal with the principles and practice of precision measurement. Topics to include fixed gages, micrometers, verniers, thread gaging, comparison measurement, optical measuring instruments, calibration and angle measurement.

3 Class Hours; Prerequisite: MAT 124 Statistics I or MAT 125 Statistics I with Computers or MAT 136 Intermediate Algebra and Trigonometry.

SQC 113
Statistical Process Control (3)

A thorough study of process capability analysis and control chart procedures. Capability Indices, control charts for attributes, p, np, c, u, d, short-run control charts. Control charts for variables x, R, S. Distinctions made between process capability and process control.

3 Class Hours; Prerequisite: MAT 124 Statistics I or MAT 125 Statistics I with Computers.

SQC 220
Senior Practicum (3)

This course is designed to allow students to integrate their theoretical knowledge with real world situations. Working in teams, students are assigned to case studies involving actual or fictitious data. The course emphasizes computer usage, classroom presentations, and written reports. ISO 9000 Standards and problem solving techniques including Pareto diagrams, process flowcharts, check sheets, brainstorming, cause-and-effect diagrams, multi-voting schemes are discussed.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

3 Class Hours; Prerequisites: SQC 111 Acceptance Sampling Techniques, SQC 112 Metrology, SQC 113 Statistical Process Control, SQC 244 Reliability and Life Testing, MAT 224 Statistics II; Corequisite MAT 245 Design of Experiments.

SQC 244
Reliability and Life Testing (3)

Fundamentals of probability, probability distributions, discrete distributions: binomial, hypergeometric, Poisson, Pascal, continuous distributions: normal, exponential, gamma, log-normal, Weibull. Introduction to reliability, failure rate, MTBF, MTTF, mean life, probability of survival for series systems and parallel redundant systems, basics of life testing based on preassigned number of failures and preassigned time, SPRT, maintainability, availability, and MTTR.

3 Class Hours; Prerequisite: MAT 124 Statistics I or MAT 125 Statistics I with Computers.

SQC 297
Cooperative Work Experience (1-3)

Cooperative education in Quality Assurance may be available. On-the-job experience may be obtained in an industrial setting whose operations require process control, statistical analysis, problem solving skills, or other tools of Quality Assurance. To be eligible, a student must maintain a cumulative grade point average of at least 2.5 with a minimum of 3.0 in MAT and SQC courses, have no "F" grades, and exhibit responsibility through SQC 100/200 orientation.

Prerequisite: Placement by advisor.

TECHNOLOGY

TEC 100
Introduction to Technology (0.5)

Introduction to Technology, career opportunities, transfer opportunities, study skills and college services. An association with industry is established through field trips and panel discussions involving industry personnel. Reasonable proficiency in the use of the hand held calculator is developed.

1 Laboratory Hour

THEATER

THR 101
Theater Appreciation (3)

Art of the theater to increase understanding and appreciation of drama. A cultural approach considering the interrelationship of all aspects of production including plays, acting, directing, costume, make-up and lighting. Attendance at local productions. (Students taking this course may also be interested in LIT 230 American Drama, LIT 233 World Drama.)

3 Class Hours

THR 102
Introduction to Musical Theatre (3)

Chronological history of American Musical Theatre (with contemporary British additions) from 19th century minstrelsy, melodrama, vaudeville and burlesque to the present day Broadway musical. Interaction of composer, lyricist, librettist, director, choreographer, performers and technicians. Illustrated by films, slides and live performances.

3 Class Hours

THR 109, 110
Practicum in Theater Design and Technology (3, 3)

Stage design (both lighting and scenic) and construction techniques are studied first hand, as students participate in actual production of two plays each semester. Problems encountered during a production are analyzed. Individualized instruction is increased as students begin to focus on their particular areas of interest.

3 Class Hours each

THR 111
Acting: External Style (3)

Fundamental acting techniques. Development of individual skills and disciplines relative to external acting techniques. Use of face, voice and movement.

3 Class Hours

THR 112
Acting: Internal Style (3)

Intensive application of acting techniques through scene study and performance. Problems of character analysis, internal acting and style.

3 Class Hours

THR 114
Oral Interpretation (3)

Oral presentation of prose, poetry, drama, and comedy performed individually and in groups.

3 Class Hours

THR 117
Creative Dramatics (3)

Fundamentals of creative dramatics, its use in teaching, recreation and rehabilitation. Introduction to techniques used and practical application opportunities.

3 Class Hours

THR 121
Make-up for TV and Film (1)

Use of prosthetics and cosmetics. Techniques of executing age, character, and stylistic effects. Students to provide pertinent materials.

2 Studio Hours

THR 140
Announcing for Radio/TV (3)

Presentation as on-air personality. Development of visual and vocal techniques relating to presentation of news, interviews, commercials and announcements.

3 Class Hours

THR 151
Theater Production I (3)

Classroom and workshop study relative to production of plays, including historical and dramatic perspective. Script analysis, play selection, audience research, publicity, administration of a theater.

3 Class Hours

THR 152
Theater Production II (3)

Classroom and workshop for stage production. Special attention to stage management, operation of stage crews, house management. Coordination of visiting and touring theater companies regarding production and logistics.

3 Class Hours

THR 161
Playwriting (3)

Scriptwriting for the theatre. Attention to style, editing, and suitability for performance.

3 Lecture Hours; Prerequisite: ENG 110 and any THR course.

THR 165
Dance for Actors I (1)

Basic dance techniques, dance characterization, and movement relative to performance in musical theatre.

8 Class Hours, 22 Laboratory Hours

THR 175
Dance for Actors II (1)

Intensive dance techniques, dance characterization, and movement relative to performance in musical theatre.

8 Class Hours, 22 Laboratory Hours

THR 190
Broome Community College Theater (1)

Students who participate in the plays and performances of the BCC Theater Co. receive one credit per semester. (May be repeated 3 times for credit.)

THR 201, 202
Children's Theater (3, 3)

Touring children's theater company during academic year. Performances at area elementary schools for classtime and assembly programs. Visiting with students pre/post production. Design and construction of costumes, sets, and properties. Analysis of children-oriented plays, development of scripts, rehearsal and performance.

3 Class Hours Each

THR 203
Summer Touring Children's Theater Company (3)

Touring children's theater company during summer. Performances at area recreation centers, parks, camps and playgrounds. Visiting with children pre/post production. Design and construction costumes, sets, and properties. Analysis of children-oriented plays, development of scripts, rehearsal and performance.

3 Class Hours

THR 218
Role Study and Characterization (3)

The varied creative processes by which an actor might develop a characterization are studied in theory and explored in practice with emphasis upon screenwork.

3 Class Hours

THR 219
Periods and Styles of Acting (3)

Procedures and techniques necessary for acting in theatrical and period productions such as Elizabethan, Italian Renaissance, Restoration, Absurdist and innovative styles.

3 Class Hours

THR 221
History of The Theatre (3)

History of stage production with emphasis on theatre as a performing art. Chronological examination of theatre activity as a mirror of social and cultural experience from primitive times through the Renaissance.

3 Class Hours

THR 222
History of the Theatre (3)

History of stage production from the 18th Century to the present, with attention to the contribution of dramatic literature and the fine arts to stage development.

3 Class Hours

THR 231
Stage Direction I (3)

Examination of the perspective of the director in relation to himself, the play, the actors, designers, playwright, and the collaborative evolution of the production. Development of directing methods and techniques in terms of casting, pictorial emphasis and harmony, rehearsal and production procedures. Preparation of prompt book and direction scenes. Proscenium and non-proscenium techniques.

3 Class Hours

THR 232

Stage Direction II (3)

Detailed analysis of directing in relation to theatrical styles and periods. Examination of the techniques of such directors as Meyerhold, Antoine, Guthrie and Kazan. Direction of pertinent scenes.

3 Class Hours

THR 246, 256

Rehearsal and Performance for Stage (3,3)

Casting, rehearsing and acting in made-for-stage drama and comedy scripts.

3 Class Hours Each; Prerequisite: Permission of Instructor.

THR 266

Acting for TV, Film and Commercials (3)

Proficiency in performing before the camera. Character analysis, quick study, re-takes, voice-overs, studio projection, facial nuances, and subtlety of mannerism.

2 Class Hours, 2 Studio Hours.

THR 276

Rehearsal and Performance for Television (3)

Casting, rehearsing, and acting in made-for-television drama and comedy scripts.

3 Class Hours; Prerequisite: Permission of Instructor.

THR 299

Independent Study: Theater (1-3)

An individual student project concerned with advanced work in a specific area of theater. Conducted under the direction of a faculty member, independent study is concerned with material beyond the scope and depth of the ordinary course.

Prerequisite: 3 Semester hours of college level work in theater.

TELECOMMUNICATIONS

TLC 110

Telecommunications I (4)

An introduction to the techniques, principles, and terminology of voice communications. Telecommunication equipment will be presented and the frequency spectrum, modulation and multiplexing techniques explored.

4 Class Hours; Prerequisite: EET 121 Electrical Circuits, CST 106 Computer Applications.

TLC 120

Telecommunications II (4)

An introduction to the techniques, principles, and terminology of data communications. Data commmunication equipment, multiplexing and transmission technology will be demonstrated. Lectures, interactive learning, and demonstrations will be employed.

4 Class Hours; Prerequisite: TLC 110 Telecommunications I.

TLC 210

Telecommunications III (4)

An introduction to the technology and terminology of Local Area Networks. The topologies, transmission media, network interfaces and access method will be examined. Lectures, interactive learning, and demonstrations will be employed.

3 Class Hours; 2 Laboratory Hours; Prerequisite: TLC 120 Telecommunications II.

TLC 220

Telecommunications IV (4)

A survey of current and emerging technologies in Telecommunications. Lectures, interactive learning, demonstrations, and site visits will be employed. Topics include packet, frame relay, switched video, ISDN, wireless communications, and other transmission mediums.

3 Class Hours; 2 Laboratory Hours; Prerequisite: Telecommunications II.

TRAVEL AND TOURISM

TTM 102

Introduction to Travel and Tourism (3)

An introduction to the broad nature of travel and tourism. Course provides an overview of travel and tourism business entities, status of and trends in the industry, travel and tourism career opportunities, and destination information.

3 Class Hours

TTM 117W

Travel and Tourism Suppliers (3)

Study of the travel product and those businesses that provide it. Emphasis on suppliers (such as domestic/international airlines, railways/AMTRAK, car rental agencies, motor coach lines, cruise lines, and others in the hospitality/tourism field), tours/itineraries, destination geography, customer service, and travel product sales.

3 Class Hours; Prerequisite TTM 102 Introduction to Travel and Tourism.

TTM 217

Airline Ticketing and Documentation (3)

This course acquaints the student with the principles of documentation, ticketing, and tariffs associated with the travel industry. Students will also work hands-on with travel-related reference materials.

3 Class Hours; Prerequisite: TTM 102.

TTM 260

Destination/Convention Marketing and Management (3)

Explores the significance of tourism as an economic, environmental, and social force. Study of tourism development with focus on local/regional tourism destinations, visitor information services, and activities of convention and visitor bureaus and meeting planners in planning and marketing meetings, conventions, and other activities directed at groups.

3 Class Hours; Prerequisite: TTM 102 Introduction to Travel and Tourism.

TTM 290

Special Topics in Tourism (1-3)

Special courses covering particular topics in tourism (e.g. ecotourism, sports and recreation management, sustainable tourism, agri-tourism) beyond the scope of regular course offerings.

3 Class Hours; Prerequisite: TTM 102.

TTM 291

Computerized Reservation Systems (3)

Introduces the student to computerized reservation systems. Included will be instruction on: building the passenger name record, flight availability, pricing, and car/hotel reservations. Students will acquire all of the skills needed to do complete travel planning for the travel consumer. Includes extensive use of travel-related reference materials, and computer software simulations of the SABRE system.

3 Class Hours; Prerequisites: TTM 102 and TTM 217.

TTM 298

Travel and Tourism Internship (1-3)

Career-related employment/experience that complements academic preparation in the field of travel and tourism. Interns receive on-the-job experience in areas such as travel agencies, hotels, resorts, car rental agencies, airlines, convention and visitors' bureaus. BCC is also a member of the Walt Disney World Internship program.

1-3 Class Hours; Prerequisite: Senior status, in final semester or permission of instructor.

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* Taught evenings only and when enrollment permits.

† Carries separate grades for laboratory and lecture.

‡ Combined lecture-laboratory course. Final grade depends on successful completion of both parts.

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State University of New York

Broome Community College is one of the 64 colleges that comprises the State University of New York (SUNY), which was established by the State Legislature in 1948. The 64 units include 30 locally-sponsored two-year community colleges like Broome.

State University's 64 geographically dispersed campuses bring educational opportunity within commuting distance of virtually all New York citizens and comprise the nation's largest, centrally managed system of public higher education.

When founded in 1948, the University consolidated 29 State-operated, but unaffiliated, institutions. In response to need, the University has grown to a point where its impact is felt educationally, culturally, and economically, the length and breadth of the State.

More than 400,000 students are pursuing traditional study in classrooms or are working at home, at their own pace, through such innovative institutions as Empire State College, whose students follow individualized and often non-traditional paths to a degree. Of the total enrollment, approximately 36 percent of the students are 25 years or older, reflecting State University's services to specific constituencies, such as refresher courses for the professional community, continuing educational opportunities for returning service personnel, and personal enrichment for more mature persons.

State University's research contributions are helping to solve some of modern society's most urgent problems. It was a State University scientist who first warned the world of potentially harmful mercury deposits in canned fish, and another who made the connection between automobiles and industrial exhaust combining to cause changes in weather patterns. Other University researchers continue important studies in such wide-ranging areas as immunology, marine biology, sickle-cell anemia, and organ transplantation.

More than 1,000 Public Service activities are currently being pursued on State University campuses. Examples of these efforts include special training courses for local government personnel, State civil service personnel, and the unemployed; participation by campus personnel in joint community planning or project work, and campus-community arrangement for community use of campus facilities.

A distinguished faculty includes nationally and internationally recognized figures in all the major disciplines. Their efforts are recognized each year in the form of such prestigious awards as Fulbright-Hays, Guggenheim, and Danforth Fellowships.

The University offers a wide diversity of what are considered the more conventional career fields, such as business, engineering, medicine, teaching, literature, dairy farming, medical technology, accounting, social work, forestry, and automotive technology. Additionally, its responsiveness to progress in all areas of learning and to tomorrow's developing societal needs has resulted in concentrations which include the environment, urban studies, computer science, immunology, preservation of national resources, and microbiology.

Overall, at its EOC's, two-year colleges, four-year campuses and university and medical centers, the University offers more than 4,000 academic programs. Degree opportunities range from two-year associate programs to doctoral studies offered at 12 senior campuses.

The 30 two-year community colleges operating under the program of State University play a unique role in the expansion of educational opportunity. They provide local industry with trained technicians in a wide variety of occupational curriculums, and offer transfer options to students who wish to go on and earn advanced degrees.

The University passed a major milestone in 1985 when it graduated its one-millionth alumnus. The majority of SUNY graduates pursue careers in communities across the State.

State University is governed by a Board of Trustees, appointed by the Governor, which directly determines the policies to be followed by the 34 State-supported campuses. Community colleges have their own local boards of trustees whose relationship to the SUNY Board is defined by law. The State contributes one-third to 40 percent of their operating costs and one-half of their capital costs.

The State University motto is: "To Learn — To Search — To Serve."

Colleges of the

State University of New York

Community Colleges

(Locally-sponsored, two-year colleges under the program of State University)

Adirondack Community College at Glens Falls
Broome Community College at Binghamton
Cayuga County Community College at Auburn
Clinton Community College at Plattsburgh
Columbia-Greene Community College at Hudson
Community College of the Finger Lakes at Canandaigua
Corning Community College at Corning
Dutchess Community College at Poughkeepsie
Erie Community College at Williamsville, Buffalo, and Orchard Park
Fashion Institute of Technology of New York City
Fulton-Montgomery Community College at Johnstown
Genesee Community College at Batavia
Herkimer County Community College at Herkimer
Hudson Vailey Community College at Troy
Jamestown Community College at Jamestown
Jefferson Community College at Watertown
Mohawk Valley Community College at Utica
Monroe Community College at Rochester
Nassau Community College at Garden City
Niagara County Community College at Sanborn
North Country Community College at Saranac Lake
Onondaga Community College at Syracuse
Orange County Community College at Middletown
Rockland Community College at Suffern
Schenectady County Community College at Schenectady
Suffolk County Community College at Selden, Riverhead, and Brentwood
Sullivan County Community College at Loch Sheldrake
Tompkins Cortland Community College at Dryden
Ulster County Community College at Stone Bridge
Westchester Community College at Valhalla

State-Operated Colleges

University Centers

State University of New York at Albany
State University of New York at Binghamton
State University of New York at Buffalo
State University of New York at Stony Brook

Colleges of Arts and Sciences

State University College at Brockport
State University College at Buffalo
State University College at Cortland
State University of New York Empire State College
State University College at Fredonia
State University College at Geneseo
State University College at New Paltz
State University College at Old Westbury
State University College at Oneonta
State University College at Oswego
State University College at Plattsburgh
State University College at Potsdam
State University College at Purchase

Colleges and Centers for the Health Sciences

Health Sciences Center at Brooklyn
Health Sciences Center at Syracuse
College of Optometry at New York City
(Health Sciences Center at Buffalo) *
(Health Sciences Center at Stony Brook) *

Colleges of Technology

State University of New York College of Technology at Alfred
State University of New York College of Technology at Canton
State University of New York College of Agriculture and Technology at Cobleskill
State University of New York College of Technology at Delhi
State University of New York College of Technology at Farmingdale
State University of New York College of Agriculture and Technology at Morrisville
State University of New York College of Technology at Utica/Rome**
(Upper Division and master's programs)

Specialized College

State University of New York College of Environmental Science and Forestry at Syracuse
State University of New York Maritime College at Fort Schuyler

Statutory Colleges

New York State College of Agriculture and Life Sciences at Cornell University
New York State College of Ceramics at Alfred University
New York State College of Human Ecology at Cornell University
New York State College School of Industrial and Labor Relations at Cornell University
New York State College of Veterinary Medicine at Cornell University

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* The Health Sciences Centers at Buffalo and Stony Brook are operated under the administration of their respective University Centers.

** This is an upper-division institution authorized to offer baccalaureate and master's degree programs.

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Approved Calendar
1999 - 2000 Academic Year

Fall

Registration	August 16-20
Classes Start	August 23
Labor Day (College Closed)	September 6
Mid-Semester Break	October 11-12
Thanksgiving Break	November 24-26
Last Day of Classes	December 13
Reading Day	December 14
Final Exams	December 15-17

Spring

Registration	January 10-14
Martin Luther King Jr. Day (College Closed)	January 17
Classes Start	January 18
Mid-Semester Break	March 8-10
Convocation Day	April 13
Spring Break	April 24-28
Last Day of Classes	May 12
Final Exams	May 15-17
Staff Renewal Day	May 18
Graduation	May 19

Note:

Memorial Day	May 29

2000 - 2001 Academic Year

Calendar not available in time for the printing of this catalog.

Broome
Community
College
State University of New York

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BROOME COMMUNITY COLLEGE
ADMISSIONS OFFICE
P.O. BOX 1017
BINGHAMTON, NY 13902-7983

ENCLOSE THIS CARD IN AN ENVELOPE AND MAIL TO:

Broome Community College
Student Health Services
P.O. Box 1017
Binghamton, NY 13902-7983

Date ______________________

S.S.# ______________________

Name ______________________

Address ______________________

City ______________ State ______

Zip ________ Phone: (   ) ______________

H.S. Attended ______________________

Graduation (Mo./Yr.) ______________________

Any colleges attended? If so, how many credits and at which colleges?

____

____

Check the information you would like to receive:

- ☐ Application
- ☐ Early Admissions for High School Juniors
- ☐ Educational Opportunity Program (EOP)
- ☐ Financial Aid / Scholarship Information
- ☐ Summer School Information
- ☐ College-on-the-Weekend

Please identify your curriculum interests:

- ☐ Accounting
- ☐ Business Administration
- ☐ Business Administration: Healthcare Services Administration
- ☐ Business Administration: International Business
- ☐ Business Information Management*
- ☐ Business Skills Certificate
- ☐ Chemical Dependency Counseling
- ☐ Chemical Engineering Technology
- ☐ Civil Engineering Technology
- ☐ Communication and Media Arts
- ☐ Computer Information Systems
- ☐ Computer Science
- ☐ Computer Technology
- ☐ Criminal Justice-Corrections
- ☐ Criminal Justice-Police
- ☐ Certified Dental Assisting Certificate
- ☐ Dental Hygiene
- ☐ Desktop Publishing Certificate*
- ☐ Dietary Manager Certificate
- ☐ Early Childhood
- ☐ Electrical Engineering Technology
- ☐ Emergency Medical Technology/Paramedic
- ☐ Engineering Science
- ☐ Financial Services
- ☐ Fire Protection Technology
- ☐ Health Information Technology
- ☐ Hotel Restaurant Management
- ☐ Human Services
- ☐ Industrial Technology
- ☐ Industrial Technology: Quality Assurance
- ☐ Liberal Arts and Sciences
- ☐ LA General Studies (Acting/Theater)
- ☐ LA General Studies (Art and Design)
- ☐ LA General Studies (Education)
- ☐ LA General Studies (Music)
- ☐ Liberal Arts: Individual Studies
- ☐ Management
- ☐ Manufacturing Resources Management*
- ☐ Marketing/Management/Sales
- ☐ Mechanical Engineering Technology
- ☐ Medical Assistant
- ☐ Medical Laboratory Technology
- ☐ Medical Transcription Certificate*
- ☐ Nursing
- ☐ Office Administration
- ☐ Office Technology Certificate
- ☐ Paralegal
- ☐ Physical Therapist Assistant
- ☐ Purchasing Certificate*
- ☐ Radiologic Technology
- ☐ Records Information Management Certificate
- ☐ Telecommunications Technology
- ☐ Tourism Management
- ☐ Website Development & Management Certificate*

**Pending New York State approval*

Broome Community College
State University of New York

Date information sent by BCC: ______________

Broome Community College
State University of New York

Broome Community College
Student Health Services
PO Box 1017
Binghamton, NY 13902

Immunization Record

According to NYS Public Health Law all college students born on or after January 1, 1957 who register for 6.0 or more credits must provide documentation of immunization against measles, mumps and rubella.

If you are attending high school or college at the present time, please have the Health Office complete this form and bring it to Student Health Services - Science Building 102 - on or before the first day of classes.

Name ______________________ SS# ______________

Address ______________________

Date of Birth ______________ Telephone ______________

Immunizations (Dates must be listed)

Disease	Vaccine Date	Disease History (onset date)	Serology Date/Results
Measles			
Rubella			
Mumps			
or combined as MMR			

I certify that the above is complete and accurate to the best of my knowledge.

School Official's Name ______________________

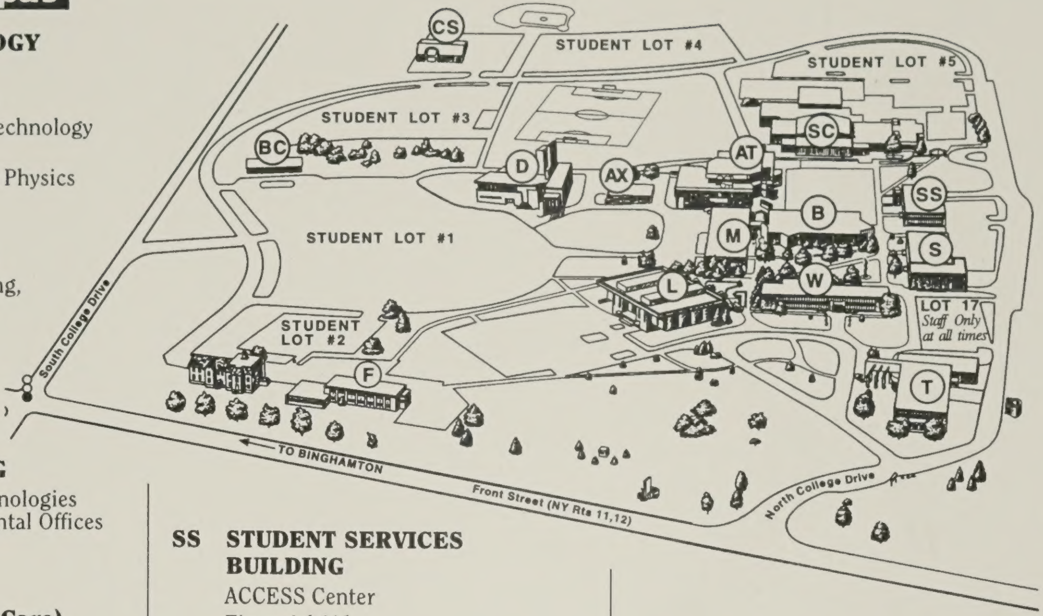
School Official's Signature ______________________

High School/College ______________________

Address ______________________ Telephone ______________

City ______________ State ________ Zip ______________

Map of the Campus



AT **APPLIED TECHNOLOGY BUILDING**
- Computer Studies Office
- Electrical Engineering Technology Office
- Engineering Science and Physics Office
- Math Offices
- Prew Conference Center
- Technologies, Engineering, and Computing Divisional Offices

AX **ARTS ANNEX**
- Art Studios
- Music Studios

B **BUSINESS BUILDING**
- Business and Office Technologies Divisional and Departmental Offices
- Computing Resources
- Media Services

BC **B.C. CENTER (Child Care)**

CS **CAMPUS SERVICES BUILDING**
- Copy Center
- Maintenance
- Purchasing
- Shipping and Receiving

D **DR. G. CLIFFORD & FLORENCE B. DECKER HEALTH SCIENCE CENTER**
- Dental Hygiene Clinic & Office
- Nursing Office
- Physical Therapy Assistant Office
- Medical Laboratory Technology Office
- Health Information Technology Office
- Medical Assistant Office
- Radiologic Technology Office

F **901 FRONT STREET**
- Biological Sciences

L **CECIL C. TYRRELL LEARNING RESOURCES CENTER (Library)**
- Affirmative Action Office
- Disabled Student Services
- Learning Assistance Center
- LRC / Library
- Teaching Resource Center

M **MECHANICAL BUILDING**
- Civil/Mechanical Engineering Technology Office

S **SCIENCE BUILDING**
- Chemical Engineering Technology Office
- Student Activities
- Student Health Services

SS **STUDENT SERVICES BUILDING**
- ACCESS Center
- Financial Aid
- Finance Office
- Registrar's Office
- Student Accounts

SC **STUDENT CENTER**
- Athletics Office
- Bookstore/Campus Shop
- Cafeteria
- Faculty/Student Association
- Fitness Center
- Gymnasiums
- Little Theatre
- Physical Education Office

T **PAUL F. TITCHENER HALL**
- Liberal Arts and Human Services
- Communication Arts

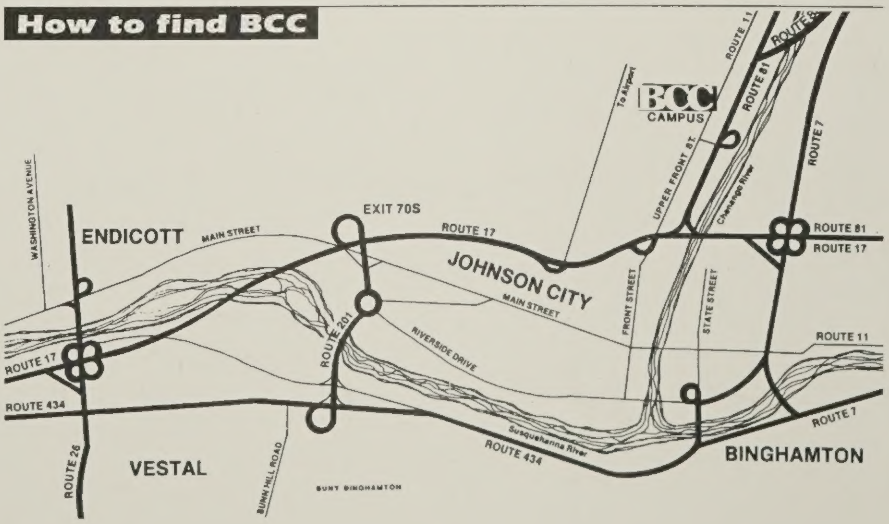
W **DARWIN R. WALES ADMINISTRATION BLDG.**
- Administrative Offices
- Admissions Office
- Alumni Office
- BCC Foundation
- Center for Community Education
- Human Resources (Personnel)
- Publications Center
- Security Office

Parking

All vehicles must be registered with the Campus Security Office. Students are allowed to park only in student lots until 5 p.m. After 5 p.m., parking is allowed in any lot except Staff Lot 17. Parking map and temporary parking passes are available in the Campus Security office, Wales Lobby. General parking regulations are in effect at all times:

- No parking is allowed on grass, roadways, or lot perimeters
- No parking is allowed in Handicapped zones without a permit issued by Campus Security
- Staff Lot 17 is reserved at all times for staff only.

How to find BCC



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